DOCUMENT RESUME

ED 125 568 IR 003 652

TITLE	Proceedings of the 1973 Annual Federal Interagency Field Librarians Workshop (2nd, Denver, Colorado, September 24-28, 1973).
INSTITUTION	Department of the Interior, Washington, D.C. Office of Library Services.
PUB DATE	74
NOTE	471p.; For a related document see IR 003 653
EDRS PRICE	MF-$0.83 HC-$24.77 Plus Postage.
DESCRIPTORS	Audiovisual Aids; *Conference Reports; *Government Libraries; Government Publications; Information Retrieval; Interlibrary Loans; *Librarians; Library Acquisition; *Library Administration; Library Automation; Library Cooperation; Library Services; *Library Technical Processes; Library Technicians
IDENTIFIERS	Federal Library Committee

ABSTRACT

Over 50 presentations from a 5-day conference cover all aspects of federal libraries and librarianship. The civil service structures for librarians and information specialists, career ladders within agencies, librarians' associations, and the role of the library technician are discussed. Administrative areas covered include costing formulas, budgeting, and interlibrary cooperation. Library technical processes discussed include interlibrary loans, library automation, information retrieval, media selection, acquisitions, and microfiche publishing. Both technical and administrative aspects of the handling of government documents are covered. A list of participants is appended. (PF)

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ED125568

PROCEEDINGS OF THE

1973
SECOND ANNUAL FEDERAL INTERAGENCY FIELD LIBRARIANS WORKSHOP

September 24—September 28, 1973

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

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DENVER, COLORADO

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INTRODUCTION

SECOND ANNUAL FEDERAL INTERAGENCY FIELD LIBRARIES WORKSHOP

The Department of the Interior began holding a series of library workshops in 1964 when the interdependence of libraries was given recognition. The Workshops have outlined agency program and policies; emphasized better agency-wide service; promoted efficiency and economy of operations; encouraged exploration of new methods and techniques for library service and dissemination of information; pressed education and training of library personnel, and provided a forum to establish attitudes and goals for a maximum service effort for information communication.

All of these objectives are applicable, of course, to Federal libraries in general. The 1972 library workshop was the first to which all Federal agencies were invited, and in fact five had principal roles in designing what was titled the First Annual Federal Interagency Field Librarians Workshop.

In continuance of historical practice of alternating Washington-field, the 1973 Workshop was sited outside Washington in Denver, Colorado. The effort represented herein was interagency in a truer sense than previous ones since nine agencies had substantive input in preparation. Attendance in a year of some travel restrictions was 283.

To achieve greater cohesiveness and to facilitate planning of future workshops, a Long-Range Planning Committee held several meetings during the Workshop to compose guidelines for future Planning Committees and participants. The Committee was organized with Washington and field representatives to diversify viewpoints.

The contents of this Proceedings will reflect attention to some new areas as well as standard topics of perennial interest. Innovative sessions encouraged the user to assume a role in criticizing performance in libraries, and invited librarians to gain familiarity with management of libraries. Among standard subjects were interlibrary loan, binding, cataloging, and problem solving.

As acceptance of the Workshop becomes more widespread, size will contribute advantages as well as create problems. Trends in development can be discovered through examination of recent Proceedings. The 1973 Proceedings represents another step in the direction of improved Federal library operations as it records greater and broader input to the development of services.

Welcome - Conference Chairman

Ladies and Gentlemen:

Good morning and welcome to the 1973 Federal Library Workshop!

I am Warren McBirney, Bureau of Reclamation Engineering and Research Center in Denver, Conference Chairman for this 1973 meeting. For the first time in Denver, it is our pleasure to host this important interagency conference, the second of its scope designed to produce more effective operations in Federal libraries and better cooperation among them. If numbers are any measure of success, this conference should be called successful. After worrying all spring and summer about the effects of travel restrictions, and actually considering what to do if prospective attendance did not reach 100, we find now that over 250 have registered.

These are days of increasing pressures to curtail expenditures and staffs, and while defending the benefits of library services is easy for us to do, we must nevertheless join in the national effort to get the most for the taxpayer's dollars. Consequently, we chose to emphasize on the program those aspects of work and management which, when added together, can cause a synergistic effect instead of a linear one. For this Workshop we have adopted this definition for synergism: The joint action of factors which when taken together increase each others effectiveness.

In 1969, Interior librarians in the Denver area hosted Interior's Library Workshop, the predecessor for the present expanded series of conferences inaugurated last year. In my opening remarks at that time, I gave the conferees the usual greeting and a chamber-of-commerce type run-down on Denver and Colorado. And for 4 days everything I said was the truth.

On the concluding Friday, however, our influence on the weather ran out and in about 12 hours we had 16 inches of the wettest most embarrassing snow you ever saw. A few conferees did not get transportation from the airport until Sunday.

So this year I will not stick my neck out; I'll limit my remarks to saying, "You are in Mile-hi Denver," and hope we don't have an earthquake.

You have ahead of you a very busy 5 days during which a varied program with several innovations will be presented. All of us working to produce this meeting are available to assist you in any way possible: do not hesitate to call upon us.

PLANS FOR THE FEDERAL LIBRARY WORKSHOP - 1973

Deborah A. Eaton
Librarian
Wildlife Research Center
Denver, Colorado

Alice looked around her in great surprise.

"Why I do believe we've been under this same tree the whole time! Everything's just as it was!"

"Of course it is," said the Queen. "What would you have it?"

"Well, in our country," said Alice still panting a little, "you'd generally get to somewhere else -- if you ran very fast for a long time as we've been doing."

"A slow sort of country!" said the Queen. "Now, here, you see, it takes all the running you can do, to keep in the same place. If you want to get somewhere else, you must run at least twice as fast as that."

(From Through the Looking Glass, by Lewis Carroll)

As members of the Federal Library Community, we find ourselves in Alice's situation--running as fast as we can and barely standing in the same place. Obviously, we are going to have to develop a synergistic approach among ourselves if we are to even keep up with where we are. The objectives of this workshop reflect that need.

When the Field Planning Committee first met in February, we had a blank slate. We had been told that Denver was the spot, and that the rest was up to us. The Committee thought a good deal about the purpose of these interagency meetings and decided that we would try to provide an atmosphere in which there could be a meaningful interchange of both ideas and services throughout the whole spectrum of library needs. We also did something else. To define our overall objectives and assure continuity in future workshops, we created a Long Range Planning Committee. The present members of this committee are:

Mary A. Huffer, Interior
Elsa S. Freeman, Housing and Urban Development
Margrett B. Zenich, Corps of Engineers
Stanley J. Bougas, Commerce
Ray D. Reese, Interior
Ruth Gilbert, Veterans Administration
Yvonne Rhodes, Army

They will be working not only on setting up future workshops--selecting sponsors, locations, etc.--but on defining where we are going, our organizational structure, and a permanent title for the workshop.

Up to now, the workshop has not had even a recognizable name. Being a librarian, I found that I can trace the history of the workshop through my card catalog. Let me begin with this one and list my "see also's" in reverse chronological order:

1973: Federal Library Workshop
1972: Annual Federal Interagency Field Librarian's Workshop
1971: Library Workshop
1970: Departmental Library Workshop
1969: Departmental Library Workshop
1968: Biennial Departmental Library Workshop

In the beginning, Interior designed what was intended as a training session for field librarians. As the idea grew, involvement expanded, so that by 1971 Commerce and Interior joined forces, and last year over 300 representatives from several agencies had become involved.

This year we are continuing to develop our resources within the Federal Community: Agencies taking an active part include Agriculture, Air Force, Army, Commerce, Environmental Protection Agency, Housing and Urban Development, Interior, and Veterans Administration.

Each workshop has its own approach, and this is no exception. This year, beyond technical and theoretical sessions related to libraries, we have aimed at additional areas relevant to the

Federal Library: Advanced Data Processing, Management by Objectives, Communications, and a free-wheeling session where we've invited the library users to criticize libraries. When users agreed to speak, we informed them the prerequisite was that they must write their own comments.

Our goals were to identify Federal libraries as informed information systems and analyze their effectiveness, to survey current trends in library services, and to interpret the impact of government policies on libraries and library management.

Have we achieved our goals? Is this workshop a synergistic approach to library objectives? You as a participant will have an opportunity to answer these questions by filling out our evaluation forms.

In the meantime, back to Alice, whose viewpoint again seems relevant to our workshop:

> "Cheshire-Puss . . . would you tell me please which way ought I to go from here?"
>
> "That depends a good deal on where you want to get to," said the Cat.
>
> "I don't much care where --," said Alice.
>
> "Then it doesn't matter which way you go," said the Cat.
>
> "So long as I get somewhere," Alice added as an explanation.
>
> "Oh, you're sure to do that," said the Cat, "If only you walk long enough."

(From Alice's Adventures in Wonderland, by Lewis Carroll.)

KEYNOTE ADDRESS

THE FEDERAL LIBRARY COMMITTEE AND INTERAGENCY COOPERATION

John Charles Finzi, Assistant Director for Library Resources
Reference Department, Library of Congress

1. Background to the formation of the Federal Library Committee. Types of Federal Libraries represented. Need for coordination in solving common problems.

2. Formation of the Federal Library Committee. Its structure, functions, and role.

3. Activities and accomplishments of the Federal Library Committee since 1965.

4. Reorganization of the Federal Library Committee in 1973 and its broader membership.

5. Prospects and hopes for the future.

Mr. Chairman, fellow federal librarians, I am indeed pleased to be here with you today and I am also honored for having been asked to deliver the Keynote Address at the opening of the Federal Library Workshop 1973. As you know, I come to you not as a past Executive Secretary of the Federal Library Committee nor as the incoming one. This position, as you know, is at present vacant and even though an appointment is expected in the near future no announcement has yet been made. I personally regret that Frank Kurt Cylke, the immediate past Secretary of the Committee, who has done so much during the past few years in building up the Committee into a strong and dynamic force, is not here to deliver this particular address and to tell you in his own words the significance of this Committee. This could not be helped, however, and I come to you as one who has at least participated in one of the task forces of the Committee since the very inception and who has followed the development and work of this body with great and keen interest. Much of what I shall report to you today I have discussed at length with Mr. Cylke, now the Chief of the Division for the Blind and Physically Handicapped in the Reference Department of the Library of Congress, and this has insured that what I say will be pretty close to what his address would have been.

What I want to do today is to give you some of the background for the establishment of the Federal Library Committee: its formation, organizational structure, its objectives and goals; and problems that it set out to study and possibly solve and the mechanics of its operation; its accomplishments during the past eight years; and, finally, some words about its recent reorganization and its potential and prospects for the future.

The story of the Federal Library Committee has now been told several times and in much better words than mine. For those of you who will want to look further into the development and early history of the Federal Library Committee, I would strongly recommend a series of articles which appeared in 1970 in the July and October issues of the Drexel Library Quarterly. This series of articles edited by Paul Howard, the first Executive Secretary, and Marlene Morrisey, Executive Assistant to the Librarian of Congress, are actually the best documentation that can be found on the first five years of the Committee. The series opens with a preface by Dr. L. Quincy Mumford, Librarian of Congress and Chairman of the Committee, and the quotation of the Press Release of March 11, 1965, which announced the establishment of the Federal Library Committee, seems to be a fitting opening for this report:

> The Library of Congress, with the cooperation of the Bureau of the Budget, has taken the initiative in establishing a Federal Library Committee to improve coordination and planning among research libraries of the Federal Government, so that common problems may be identified, solutions sought, and services to the Government and the Nation improved.

The date of this release is actually a milestone in the history of federal libraries. The need for an interdepartmental body or mechanism for the coordination of federal library programs and devoted to the seeking of solutions for common and critical problems had been felt for over half a century and periodically revived and discussed. More recently the idea of establishing an interdepartmental advisory group to study and foster federal library coordination was forcefully discussed in a Brookings Institution document entitled Federal Department Libraries, edited by Luther Evans and issued in 1956.

The commonality of interests and problems of libraries maintained by the Federal Government has long been recognized. As in other library establishments, budgets and staffs have seldom been adequate to assure the quantity, quality, and level of services their users had a right to expect. Organizationally, federal libraries have usually been relatively low in the bureaucratic hierarchy, frequently sharing the status of the building management services, the supply office, or the mail and files unit. Because library specialization and the importance of library holdings and services have not been fully recognized by some agency administrators, long-established specialized libraries with distinguished collections built up over many years, have been relegated to the basement level or disbanded in reorganization of federal agencies, even in those whose mission accomplishments are obviously dependent upon collection and use of books and other printed materials. Moreover, the greatest number of federal libraries are supported and maintained by agencies which are mission-oriented and for this reason subject to all the changes that may affect the parent body: change of mission, budget cuts, change of emphasis, etc. And yet, federal libraries and their collections represent a basic national resource. While supporting the missions of the various federal agencies they serve, they are also public institutions, and their collections are often the most comprehensive in the specialized fields they cover. They were established and are maintained to support administrative and specialized research programs, and their services are extended directly or indirectly to all segments of the population. These federal libraries, numbering about 2,000, are widely dispersed within the United States and around the world. Forty percent of them are outside the continental United States. Only seven percent are located within the metropolitan Washington, D.C., area. Federal libraries are diversified in type, size, and resources. They include Presidential, National, academic, school, special, technical, general, and institutional organizations. They are found within the general administrative structure and on military bases throughout the world, in prisons, in hospitals, and on Indian reservations. Each type of library provides various services within specific areas. Presidential libraries specialize in the official records, memorabilia, literature, and other materials concerning the administration of an individual President of the United States. National libraries are representative of the Government and the Nation. General libraries meet cultural, informational, educational, and recreational needs of those attached to a military or public service agency. Academic libraries, including service academy libraries, serve the faculty and students in federal colleges, universities, vocational, graduate, and post-graduate schools. School libraries serve schools on military bases and on Indian reservations. Special or technical libraries support agencies requiring special and technical information. Institutional libraries serve hospitals and penal institutions.

Exclusive of the national libraries, expenditures of federal libraries in fiscal 1970 totaled nearly $16,000,000 on materials, $38,000,000 on personnel, $2,300,000 on equipment, $5,000,000 on contracts, and $1,600,000 on miscellaneous items, for a total of $62,900,000.

In various degrees, all these libraries, which are supported and maintained by the Federal Government, are faced with problems which are well known to all of us:

-- the housing of expanding collections;

-- the inadequacy of library space assignments;

-- equipment needs;

-- disposition of surplus materials;

-- procurement of current materials;

-- control of the collections;

-- service requirements;

-- accessibility of information;

-- automation of records;

-- personnel administration;

-- and many others

And it was exactly to introduce a higher degree of communication and coordination in the study and attempted solutions of these problems that the Federal Library Committee was established. And it was for this specific purpose that the Library of Congress and the Office of Management and Budget (then the Bureau of the Budget) agreed to organize a cooperative body. As mentioned earlier, the establishment of the Federal Library Committee was announced on March 11, 1965. Paul Howard, Department of the Interior Librarian, served as the first Executive Secretary. Upon his retirement in 1970, he was succeeded by Frank Kurt Cylke.

Membership in the Committee was comprised of representatives of the three national libraries, and all the Cabinet Agencies. Further, six independent agencies were elected every two years. In addition, there were five official observers. Guest observers were appointed from time to time.

The Federal Library Committee, upon deliberation, determined that its efforts should be directed toward concentrating the intellectual resources present in the federal library and library-related information community to three points:

1. To achieve better utilization of library resources and facilities;
2. To provide more effective planning, to the development, and operation of federal libraries; and
3. To promote an optimum exchange of experience, skill, and resources.

Funding support was solicited and obtained from the Council on Library Resources in June 1965. A total of $97,650,000 was appropriated to maintain activity for a three-year period. In 1969, Federal Library Committee support was assumed by the Library of Congress and placed directly under the Office of the Librarian of Congress.

To achieve the three noted goals and to facilitate implementation of six functional approaches, a full-time Secretariat was established and a Task Force-Subcommittee/Work Group operating method organized. Work groups included those directed toward:

1. Acquisition of Library Materials and Correlation of Federal Library Resources
2. Automation of Library Operations
3. Interlibrary Loan Arrangements
4. Mission of Federal Libraries

5. Physical Facilities
6. Public Relations
7. Recruiting and Personnel
8. Statistics.

All of these Task Forces and Work Groups were staffed by volunteers from various federal libraries in the Washington area.

In its work and activities, the Federal Library Committee not only coordinates library interests within the federal system but also serves in a very real sense as a bridge between the federal and non-federal sectors and many of its products have an impact and usefulness which transcend its primary concern with federal libraries and extend to the whole library community.

When the Federal Library Committee was established it was evident that in order to carry out the envisioned programs considerable sums of money would be required. Possible sources--such as foundation grants, direct appropriations by the U.S. Congress, grants from federal agencies, and subsidies from agencies represented on the Committee--were considered and the various roadblocks and alternatives weighed. As mentioned before, an auspicious beginning came with the establishment of the Committee itself, as the Council on Library Resources agreed to provide funds for employing a secretariat and administrative expenses for the Committee for three years. This was done with the understanding that if the operation was successful enough to justify an appropriation request, the Library of Congress would make such a request to Congress for subsequent years, a request that was later made and approved.

In the area of specific studies and investigations where funding was found necessary to pay for the work involved, a satisfactory arrangement which was exploited during the past few years has been the use of moneys available to the U.S. Office of Education for research grants in fields in which the Committee was definitely interested and that, while pertinent to federal problems, would also carry benefits and impact on the total library community. In this respect it became quite evident that government libraries would provide a convenient laboratory for investigating problems for the entire library community. Since the Office of Education found difficulty in transferring research funds to other federal agencies, this problem was solved in two ways, one by persuading universities to submit research proposals dealing with federal library problems, and two by having the Office of Education send out "Requests for Proposals" to prospective contractors. In each case the Federal Library Committee and its Task Forces actively participated in the project. Task Forces that have been closely involved with such grants were:

Task Force on Acquisition and Correlation of Collections

George Washington University Biological Sciences Communication Project

Task Force on Automation

Information Dynamics Corporation and the Systems Development Corporation

Task Force on Education

Catholic University of America

The funding situation for the Federal Library Committee projects is complex but promising and was recently aptly summarized by Kurt Cylke:

> "The Federal Library Committee has been able to serve as a kind of catalyst in seeing that federal library problems. It has not had control of large funds but has been able to persuade two federal agencies and two foundations--the Cafritz Foundation for example--to support its programs. Through the calendar year 1973 a total of more than one million has been spent on FLC research with considerably more in prospect. As the total program develops it is likely that funds from additional sources will have to be found and that help from Committee members will be required."

The various Task Forces and their subcommittees have worked on problems representing the broad range of federal libraries' interests and some of the publications produced or sponsored by the Committee are worth mentioning:

Guide to Laws and Regulations on Federal Libraries

Survey of Special Libraries Serving the Federal Government

Procurement of Library Materials in the Federal Government

The Role of Libraries in Relation to Information Activities

A Study of Resources and Major Subject Holdings Available in U.S. Federal Libraries Maintaining Extensive or Unique Collections of Research Materials (OE Bureau of Research - Mildred Benton - September 1970)

Automation and the Federal Library Community: Report on a Survey, by Madeline Henderson and Susan Geddes (1973)

Moreover, under the sponsorship of the Committee, as summarized by Dr. Mumford,

> basic data have been assembled also concerning acquisitions policies and collections of federal libraries and application of automated techniques to library process. The Committee worked closely and actively with the Civil Service Commission in the revision of standards for federal library positions. FLC itself established a national roster of qualified student librarians available for federal library service. A statement of the mission of federal libraries, developed by the Committee, has served as the basis for study of upgrading of the operations of a number of federal libraries.

A recent and most significant accomplishment of the Federal Library Committee has been the sponsoring and coordinating the contracting of the Ohio College Library Center (OCLC) for its services to federal libraries in furnishing on-line cataloging data in Machine-Readable Cataloging (MARC) format from its data base. The arrangements were completed by June 30 of this year and will provide at different fees the use of a dedicated line as well as availability through a telecommunication network--probably Tymshare, Incorporated. Local telephone outlets will be available to federal libraries and it is estimated that those libraries outside of the Washington area will be able to avail themselves of this service if they wish and are willing to subscribe to certain minimal operating requirements.

While coordination of efforts and the study of common problems and the search for their solutions are the most evident and visible aspects of the work and function of the Federal Library Committee, underlying all this there are two further themes which are of great contemporary momentum to the whole library world and increasingly so to federal libraries. These concepts are, of course, the sharing of resources wherever possible and the trend toward wider and wider networks of services and distribution of information. At present it is estimated that of the approximately 2,000 federal libraries, excluding the three national libraries, about one hundred already participate in formally established networks. More than four hundred pursue cooperative work on an informal basis. Most of these groups include ten or fewer libraries, but several agency-wide organizations, such as the Veterans Administration, include up to 200 participants. Some of these networks also include a blend of federal and non-federal libraries. Networking, or cooperative undertakings, include, of course, a very broad range of library activities such as union catalogs, preparation of subject bibliographies, cataloging, training programs and courses, centralized acquisition, etc. Among these, interlibrary loan is one of the major efforts among federal libraries. These activities and efforts are of major and basic interest to the Federal Library Committee, which, as the occasion demands, supports or sponsors these national cooperative efforts of federal libraries.

While the principal topic of this talk is the Federal Library Committee, it would not be possible to leave unmentioned another body which pursues similar work in a more circumscribed area and which not only closely interacts with the Federal Library Committee but also shares with it its principal officer. This body is the U.S. National Libraries Task Force of which the Executive Secretary of the Federal Library Committee is automatically the Chairman. The National Libraries Task Force was established in 1967 by the directors of the three national libraries, the Library of Congress, the National Library of Medicine, and the National Agricultural Library, to coordinate areas of common interest to the three national libraries and again, as in the case of the Federal Library Committee, to study and search for the solution of common problems. During the past several years the Task Force has worked actively in the fields of acquisition, descriptive and subject cataloging, and various phases of automation toward the ultimate goal of "development of a national data bank of machine-readable cataloging information... as a central resource for all libraries." The Task Force has submitted recommendations to the directors on:

-- The adoption of the MARC II Format for the communication of bibliographic information;

- Measures to assure compatibility in descriptive cataloging practices;
- Adoption of standard calendar data and standard language codes;
- Adoption of standard character sets for Roman alphabets and Romanized non-Roman alphabets; and
- Plans for the National Serials Data Program.

At the present time the Task Force is also developing work programs to consider cooperation between automation projects, the development of standards for subscription dealer performance, and the development of a standard order form and standard book order format.

As it is quite evident, undertakings of this kind, even though originating from the three national libraries, cannot but have an impact on the total federal library community and the interaction between the Federal Library Committee and the National Libraries Task Force is bound to continue and intensify.

Before concluding this talk, there is one further subject I should like to touch on, namely the recent reorganization of the structure of the Federal Library Committee. This reorganization, which was enacted on June 1, 1973, is fully described on page 14729 of volume 38, no. 106, of the Federal Register, and those of you who would wish to analyze it in its details are referred to it. Essentially what this reorganization did was to broaden considerably representation on the Committee and to make possible for a number of federal agencies, which were previously not represented on the Committee, to have a more direct input into its deliberations. The Chairman of the Committee continues to be the Librarian of Congress. The functions of the Committee are also very clearly spelled out and it will be of great interest to you to hear them. The Committee shall on a Government-wide basis

1. consider policies and problems relating to federal libraries,
2. evaluate federal library programs and resources.
3. determine priorities among library issues requiring attention,

4. examine the organization and policies for acquiring, preserving, and making information available,

5. study the need for and potential of technological innovation in library practices,

6. study library budgeting and staffing problems, including the recruiting, education, training, and remuneration of librarians.

Within these areas the Committee shall recommend policies and other measures.

1. to achieve better utilization of federal library resources and facilities,

2. to provide more effective planning, development, and operation of federal libraries,

3. to promote more effective service to the Nation at large.

Moreover, the Committee shall consider and recommend measures for the implementation of federal library policies and programs, and shall serve as a forum for the communication of information among federal librarians and library users.

Quite an assignment! But the Federal Library Committee has now gained both the support and the cooperation of the Office of Management and Budget and the General Accounting Office, and this spells well for the future. Much research has been done and in many areas, and in several of these we are approaching now the phase of implementation. Channels of communication and coordination have been established and action and influence, in a collective manner, will be the by-products.

In the words of the Chairman of the Committee, written three years ago, but still valid today,

> The Federal Library Committee is continually in the process of examining the involvement of federal libraries in research planning and decision-making throughout the Government. It has recognized that its concern must extend beyond the completion of specific studies and development of recommendations. It is the Committee's continuous follow-through and

concentration of implementation that are helping it to kindle a new vitality and provide new visibility for library activities in the Federal Government.

PAPERS OF THE WORKSHOP

Part I - Administration

CAREER MANAGEMENT FOR LIBRARIANS
IN THE DEPARTMENT OF COMMERCE*

Dr. Stanley J. Bougas
Director, Department of
Commerce Library

The Department of Commerce Library Science Career Management Program (Department Administrative Order 202-406, Amendment 7, Appendix D, February 12, 1973) provides a framework for the development and advancement of Department of Commerce Library employees in a career management program which has been initiated covering all those who serve all Department of Commerce Libraries and those who have an interest in the field. The basic objective of the program will be to attract, train, and retain the highest quality personnel to meet the department's present and future staffing needs. (B.01.)

The program will foster a work climate that will satisfy employee needs for recognition, belonging, accomplishment, encourage support of the program through fair treatment and constructive counseling supervisors will appraise performance, progress and prospects for advancement of staff; career knowledge, ability, and competence will be enhanced by mobility of employees across organizational lines; training and development of all staff will be encouraged. (B.02.)

The library science career field consists of all positions involving duties that require a knowledge of the theories, objectives, principals and techniques of library and information sciences. Typical duties performed by such staff include administration and management of a library and its staff, selection and acquisition of materials, cataloging and classification of acquired materials, reference service for library users including preparation of bibliographies. (B.04.)

The program is further based on the systematic development of employees through assignments and training based on a written plan setting forth the employee's immediate and long-range goals which will be coupled with annual evaluations of training, competence and potential. (B.05.)

The program is open to all employees of the department in library and information science positions. Registration is voluntary and appropriate forms are available through personnel offices and libraries. All employees in the library science field or those interested in the program are encouraged to register to take advantage of this unique opportunity for training and development. (G.01-06.)

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*All references are to DAO 202-406, Am. 7, App. D, 2/12/73.

Intake and Career Patterns

The systematic and continuing intake of carefully selected, highly qualified career trainees at the entrance level is essential to meet current and future staffing needs of the library science function. Although career field intake will normally occur at the trainee level, it is also essential to the development of quality staffing that there be some infusion of candidates at the various levels from other sources. These candidates may be nonfederal applicants.

All candidates considered for appointment to a position in this field must meet the Civil Service Commission (CSC) qualification standards described in CSC Handbook X118. These standards presently provide for the movement of personnel from related occupations into professional librarian positions under certain circumstances. In some instances a written test is required. Under these provisions, movement from a technician position to a professional librarian position is possible. The probability of such a move, however, will depend primarily on the availability of qualified candidates for any given vacancy, the degree of competition which exists among all available talent, and the specific needs of the operation unit involved. (D.02 a&b.)

The Library Science Career Program makes it possible for candidates to begin working in this career field at various grade levels. New entrants into the career field, at least twice during the first year, are given specialized career appraisal and counseling for the purpose of evaluating their individual progress, and as a basis for preparing for the annual appraisal and counseling sessions.

Each operating unit and departmental office employing new entrants into the Library Science Career Field designates a senior official as counselor. This official is responsible for advising and counseling the new employee and for preparing an initial training plan with due regard to the new employee's level of training, experience, interests, and aptitudes. The training plan is reduced to writing within 30 days after the new employee enters on duty. A copy of the plan is furnished the employee, the operating unit personnel officer, and the division chief, Departmental Library Division. (E.05 a&b.)

Appraisal and Counseling

The appraisal process is the principal means by which the supervisor can determine whether or not the employee is ready for greater responsibility and/or advancement; has deficiencies which must be overcome and the means to correct them; or has exceptional talents which would permit accelerated developmental activities. This formal process is in addition to the regular day-to-day attention which the supervisor should give to evaluating employee performance and suggesting ways in which the employee can develop and progress.

Periodic appraisals by supervisors of employees' past performance, which should be reflective of potential capabilities, serve several important career management objectives. For example, they provide a basis for (1) determining specific types of training and development required, (2) planning future assignments, and (3) ranking employees among their peers when considering candidates to fill positions of higher grades. (E.02 a&b.)

Appraisals are made by the employee's immediate supervisor. AD HOC Panel appraisals are encouraged for senior level positions which involve supervisory and management capabilities. Naturally, a form (CD-275) is used to record the appraisals. Appraisals are coordinated annually and factors are noted excellent, above average, average, and marginal. (E.02 a-d.)

Career counseling is the art of communicating advise, information, instruction, or judgment to an employee to assist in determining career goals and in meeting the developmental needs imposed by this determination. Under no circumstances should it consist of mandatory directions or criticisms of other career opportunities. The judgments and choices of the individual should be respected.

The counseling process is a two-way discussion between the career employee and the supervisor or career counselor. A constructive attitude on the part of both parties is required if the process is to be beneficial.

The objective of career counseling is to motivate the employee toward a career in the Department of Commerce. Good counseling should result in the development or career employees who are strongly motivated, better prepared, and more adaptable to the department's need for a highly qualified workforce. (E.03 a-c.)

The immediate supervisor is responsible for conducting the counseling session. The employee should have a good idea on what career plan is desired. The session would concern itself with growth in current occupation, changes in career field, change to another organization within the department or a combination of the three. The counselor will of necessity look at technical qualifications, personal attributes, career opportunities, and strong and weak points. All these are detailed in the LSCMP.

Thirty days after counseling a career plan is filed on CD-257 covering mobility, short and long-range goals, assignments and completion date of developmental activities plus evaluations.

Training and Development

The LSC Board is now considering various training vehicles for in-house training for staff. These will involve materials of a library being described to, and studies by, personnel of other libraries. For example, the staff of DOC/L may prepare a course (one or two days) in the use of the economic, industrial, foreign market, and business, bibliographic tools; this course would be attended by personnel from the Patent Office Library, NBS Library, NOAA Libraries, and SESA Libraries. In turn, these libraries would perform a like service.

This would not be the only source of training, the program provides a group of training and development courses and activities for the GS-1410, 1411, and 1412 series. The training courses listed in the Administrative Order (Attachment 1 to Appendix D, p. 25-43), are listed as a guide to the educational potential available to the registrant; these are intended to develop the skills needed at each successive level of responsibility. These courses are provided by library schools, undergraduate colleges and universities, Civil Service Commission, the Commerce Department, Department of Agriculture Graduate School and private associations.

Other appropriate training may be substituted, comparable in coverage, if approved by the LSC Board. It must be kept in mind however that the mere availability of training does not make it available automatically! Training funds may be at a low ebb; a large staff may have a large number wishing to attend and no funds; a small staff may not be able to spare personnel even if it did have funds. Personnel must also have an appropriate level of preparation when selecting courses. The important feature here is to counsel the prospective student to take courses commensurate with his preparation and build upon that by taking progressively more difficult and advanced material. This type of training may lead to a high school diploma, equivalency certificate, college, masters, law, doctor of philosophy, etc., degrees, or the specialized upper level management and executive seminars.

Registration and Referral

All department employees who are in, or who qualify for, positions in library science occupational fields may register in the Career Management Program for the Library Science Career Field. Registration is voluntary. (G.01.)

A nonparticipant in the program files a card (CD-253) indicating name, unit, birth, and service computation date and then a note "Declines Participation." Employees who elect not to register in this career program will not be eligible for competitive promotional consideration for positions included in this career field, since this program provides for merit promotion consideration of registrants only. This does not preclude the promotion of nonregistrants in connection with reclassification actions, however. (C.07.)

Employees not in the library science career field shall be advised that they may become voluntary registrants if their training or experience qualifies them for positions in occupations covered by this program. Personnel officers or their designated representatives shall review all voluntary registrations to assure that individuals accepted for registration have the experience, educational background and other qualifications meeting published Civil Service Commission qualifications standards for those occupations. (G.04 a.)

One copy of each CD-253 shall be retained in the operating unit personnel office inventory file and one copy shall be submitted to the qualification inventory file maintained by Chief, Departmental Library Division. (G.04 b.)

The Qualification Inventory File will provide means for:

Making a greater number of qualified and experienced candidates available when vacancies occur;

Furnishing employees wider opportunities for development and advancement;

Identifying personnel available for immediate reassignment to meet emergency requirements;

Facilitating placement of personnel who desire to move from one location to another;

Recording the career goals and results of appraisal and counseling sessions; and

Making periodic occupational analyses of the Library Science Career Field, evaluating staff qualifications, and identifying individual and collective training needs. (G.06c, 1-6.)

Departmental and operating unit personnel office qualification inventory files are to be used to develop referral lists for filling vacancies that occur, thereby assuring that the best qualified employees are considered. Noncommerce candidates may be considered concurrently along with employees. (H.01.)

Referral lists for library science and technical information specialist positions at GS-12 and above, shall be developed from the department-wide qualification inventory file. (H.01 a.)

Referral lists for all other positions shall be developed from the qualification inventory file maintained by the operating unit personnel office. In the event that fewer than three highly qualified candidates are located, the department-wide qualification inventory file shall be used to identify additional candidates. In many cases, optional use may be made of the department-wide qualification inventory file. (H.01 b.)

The personnel office of the operating unit in which a vacancy exists which is to be filled from the department-wide inventory file submits three copies of CD-255, "Request for Referral List," to the Chief, Departmental Library Division. A fourth copy of the request is retained by the operating unit personnel office for its records. The request includes citations of the Qualification Standards (X118 or Special Standards), the special qualifications required, the names of any recommended nominees, and other pertinent factors which are to be considered in identifying the best qualified candidates. In addition, the request includes the names and "Personal Qualifications Statement," SF-171, from all qualified candidates outside the department taken from the operating unit's applicant supply file. (H.02 a.)

An AD HOC Screening Panel, under the supervision of the Director, Office of Personnel, selects the particular candidates who may be considered for each vacancy. The panel is comprised of one representative in the Library Science Field from the Office of the Secretary, one representative from the operating unit personnel office having the vacancy, and one representative from the operating unit having the vacancy. (H.02 b.)

The Screening Panel lists on CD-225, "Request for Referral List," the names of from three to five "highly qualified" candidates for the position, including outside candidates who are being considered concurrently. If fewer than three "highly qualified" candidates are available, the names of enough "qualified" candidates are added to the list so that a sufficient number are included (normally no more than five names, except when differentiation among up to ten candidates is not reasonably possible). Candidates may be interviewed at the discretion of the panel. Any request to interview an employee candidate shall be made through the appropriate operating unit personnel office. (H.02 c.)

The panel then distributes copies of the CD-255 to appropriate units.

Selecting officials should interview candidates whose names are included on any referral lists. All candidates considered, whether or not interviewed, shall be notified by the personnel office of the operating unit of the final outcome of the consideration action. (H.03 a.)

The selecting official shall indicate this selection on CD-255, "Request for Referral List." One copy of the referral list, with all documents submitted for review, is returned to the Chief, Departmental Library Division. The other copy of the referral list is returned to the operating unit personnel office for candidate notification action and for retention in the Qualification Inventory File. (H.03 b.)

At this point in time you have a new employee from that point you are on your own own!

The Commerce Experi---ment---ence

In Fall of 1970 the Department of Commerce Office of Personnel began plans to include the Library Science Field in its series of Career Management Programs. (Let's call this Phase I.) The economists, financial analysts, and personnel staff had already come under such programs with varying success. Meetings were held with various chief librarians of the department to the point of discussing the best way to approach the problem. (Being Federal types we know the best way to approach problems - Es Verdad?.)

The Task Force! (Let's call this Phase II.) The tool of high-powered management, industry, think-tanks, the military, the bureaucracy! So why not the - you guessed it - the librarians! Bring them up-to-date - into the N O W personnel stream! Of course, our jolly personnel types had never heard of F.L.C. and all its task forces, or L.C. or COASTI, or ASIS, and on and on. Task forces were set for the large areas: staffing, appraisal, counseling, career plans, training and development, registration, referral, and selection. Target dates set; personnel from each library in the metropolitan area appointed to set on each of five task forces of five persons each plus a personnel officer from each of the bureau libraries represented and the DOC Office of Personnel; biweekly, monthly, and sometimes weekly meetings were held by these task forces. The kids worked like beavers - I can't say as much for the personnel officers. The deadlines were met - reports turned in - again the personnel officers generally lagged behind. One had the audacity to turn in a report based on the financial analysts program and didn't even bother to change "Financial Analysts" to Librarian!!

But now we come to Phase III.

Now with the exception of a passing note you have not heard mention of the Chief Librarians - the Directors - (I had some descriptive terms to use here but decided wisely, against it - they all pointed to me!). Well, we were Phase III - the Steering Committee!! Represented was DOC/L, NBS/L, NOAA/L, SESA/L, Pat/L, and NTIS plus a DOC/Personnel Officer. Patents never showed and NTIS moved to a better job.

Of course, we had a target date also. And we strove mightily for some months - after all by September '72 at the latest - IMPLEMENTATION! There were qualms, to say nothing of reservations; elation, and depression. Could we really get away with this? Never happen! Well, you would be surprised. Take a look at C.07. That one we missed. We wanted 90 day breakouts - we got 30 and 60. GS-1412 were not originally included - we got that in. At first only three librarians were represented on the LSC board. We asked for five - we now have five. It was give and take, negotiate, win some, lose some.

The program was typed and off to the Office of Personnel for approval.

Now comes Phase IV.

Those of you who have been around long enough know about Phase IV. Those of you who haven't don't - but will eventually find out. This is the "Stream of Approval." You have no idea. I sometimes felt that every person above GS-7 in DOC must have signed off on it and then it went to the printer. Well, that's why directors are bald and grey, ulcerated, pale or livid, teetotalers or alcoholics, nervous, cold, or in constant shock. It took almost 18 months before the big day February 12, 1973.

And now comes Phave V!

Distribution to personnel of the Administrative Order, rap sessions as to what they were about, fill the forms and away we go. The first target date - April 30, 1973. The only thing wrong was that most did not get the material until April 12 (3 days before IRS day!). And one library not until April 28! That's no way to make a deadline. The next deadline was fast approaching and still no returns from one group. And after all - we do have to run a library on occasion. At the time I wrote this we still had two forms to fill out. I left some blank space in the event I have some good news to report, namely, full implementation.

The good news is that it does work. We suddenly had some vacancies so early in August we had the first AD HOC screening panel meet to consider two positions: (1) A GS-5 position in the NOAA Headquarters libraries and (2) A Law Librarian Reference GS-7/9, at DOC/Library.

The GS-5 position was screened by the personnel representatives of the requesting bureau and DOC/Personnel plus a representative from the requesting bureau and one from the Office of the Director DOC/Library. We were now down to the "Nitty-Gritty" - would this really work? At the GS-5 level we had problems. The requirements were somewhat extreme and no matter how you sliced it there was no way - and no one - who could meet the requirements. How can a GS-4 who is aspiring to GS-5 be an expert in interlibrary loan, circulation, basic reference, cataloging and classification? Now! Some of you will say: that is what we do! But that is not the immediate situation. The fact remains that we may be expecting too much at these levels and should instead be looking to greater amounts of training on the job at this level than we have realized. The job consisted, as it turned out, of basic procedures; there was a requirement of extensive experience; so at this point some changes may be necessary.

As to the Law Reference position, it turned out that at the required level there were no qualified candidates within the DOC program. It was necessary to go to the Civil Service Commission to find highly qualifed candidates. That shouldn't be a surprise - we only have one law library in DOC. NOAA is trying to build one but has no staff, another Bureau has let its law collection stagnate.

Immediately after these panels two new vacancies developed. Both in DOC/Library. I found myself in the unenviable position of being a selecting officer and a member of the screening panel. Having delivered admonishions on this type of activity in "The Law and the Federal Library," Proceedings, 1971 Library Workshop, p. 25 I removed myself from the panel. However, at this level the file was instrumental in tracking down highly qualified personnel in DOC. The thing is that most of them are happy where they are and don't wish to move or unhappy where they are and don't wish to move or would do almost anything to move! You would be surprised at the misinformation. Guess how many do not know where they are employed; how many do not know their grades! How many of our librarians were born in 1965; how many are military librarians turned civilians; how many want to be merely librarians, just civilians, and that everyone wants to be an administrative librarian.

Another position has now come open and another panel will be convened. Let me tell you - the panels take time, effort, and thought; it will be interesting to see this process when vacancies occur in the field. The process becomes an entirely new learning experience. But let it be known that just from our experience at this point, it does work. Evaluate with honesty, integrity, and objectivity, and lo, and behold! There are an abundance of good people around. All it takes is a system that we must be willing to work with, that can find the candidates and then to communicate with them.

Yes, it has been an experience. There were and still are many skeptics concerning the success of the program. I have confidence that with the cooperation of all concerned it will work. It must; it is about the only way we can make our staffs real members of the Library Science/Information Field; give them encouragement in a job well done, and most of all take advantage of the full resources of our libraries by which we serve our departments, bureaus, divisions, and agencies, and that really comes down to - call them what you may - our customers, clientele, users, patrons - our readers. Those are the ones we serve. Let's try to serve them well!

Copyright and Copying: Should Librarians Care?

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Abstract

Revision of the copyright law to explicitly give copyright proprietors the exclusive right in photocopies of their works, as well as a public lending right seems imminent. It appears that this right is necessary to the survival of some portions of the publishing industry, though elimination of copyright protection altogether for some portions would ultimately be in the public interest. There are two systems now contemplated of collecting royalties for photocopying use made of copyrighted works. These are blanket licensing and statutory licensing. Both would be difficult to administer. Blanket licensing has the additional advantage of being very expensive. Statutory licensing would be unduly burdensome to librarians. Although, librarians have no standing to object to the collection of royalties on photocopies, they have no duty to participate in collecting the royalties.

When I was asked to speak on the subject of the copyright photocopying problem from the librarians viewpoint my reactions were both to decline because of my lack of expertise in the subject and on the otherhand to accept because the subject is interesting to me. I followed the latter inclination. As I read the various materials that I'd collected over a period of years on copying, I found that I truly had a latent interest in the photocopying problem, so that today I'm an enthusiastic, if not expert, panelist.

Mr. Lillis is far better qualified than I to give you an analysis of the legal issues concerning copyright and photocopying; therefore, I think I will only briefly analyze the legal aspects of the controversy so that we'll be at the same place with regard to the legal realities of it, then show you what I think are the best arguments for and against copyright proprietors having rights in photocopies made of their works.

The present copyright law was passed in 1909. Since then it's been amended only once or twice in ways that don't concern us here. This present law states that the proprietor of a copyright shall have the exclusive right "to print, reprint, publish, copy and vend the copyrighted work."[1] Although it seems that the statute on its face gives the copyright proprietor the complete and only right to the use of his work, the statute's been limited by the judicial doctrine of "fair use" which states essentially that another than the copyright proprietor has a "privilege" to make use of a work in a way that's fair; and that whether or not the use is fair depends upon the amount of the work that's used, the purpose in using it, and whether it takes profit away from the proprietor.[2] However, up until the recent Williams and Wilkins case which is still on appeal to the Court of Claims, the doctrine of fair use hasn't ever been applied to photocopying. So 'til now neither statute nor judicial interpretation of the statute has told librarians whether the making of either single or multiple copies infringed copyright.

Now, however, we have the Williams and Wilkins decision, which must admittedly yet withstand the scrutiny of the full Court of Claims and possibly the U.S. Supreme Court, but which, if it does, will stand for the proposition that the making of multiple copies and very likely of single copies, infringes copyright. In addition, S. 1361 [3] which has been introduced into the current session of Congress, is a bill to revise the copyright law. It has evolved from a series of bills for that purpose that have been introduced into one house or the other over the last decade. Section 107 of the bill incorporates into the statute the application of fair use to photocopying, but leaves to the courts the determination of what is fair use in specific situations. Under this section Williams and Wilkins[4] will be authorative as to whether any copying comes within the limits of fair use. If it does not, copying must all be paid for.

Furthermore, Section 108 severely limits photocopying service by providing that libraries may make single copies of entire works for security or replacement purposes if they aren't able to get the book through normal trade channels.[5] Although, it provides that librarians aren't liable for infringement for other types of copying if they post infringement warnings at their copying machines, it does make the copier liable. Librarians are asking that the section be changed to explicitly allow the copying of complete articles or contributions to a journal or collection.

It should also be called to your attention that in addition to the limitations on public photocopying privileges that impend, Section 106 of S. 1361 gives the copyright proprietor the exclusive right "to distribute copies ... by rental, lease, or lending" and "to display the work publicly."[6] Since Sweden already requires that royalties be paid by libraries for the privilege of lending, and the British Society of Authors is recommending that the English copyright law be amended to include a public lending right, it's obvious that Section 106 should be interpreted literally.

This summary of legal incidents of the copyright law with regard to photocopying I think shows indisputably that that law is changing right now. I'd like to take up now the question of whether this change is a necessary or beneficial change in terms of the public interest.

The U.S. Constitution states that "the Congress shall have the power ... to promote the progress of Science and the useful Arts, by securing for limited Times to Authors and Inventors the exclusive rights to their respective Writings and Discoveries."[7] The paramount purpose of the copyright power given to Congress, then, is the public interest, the underlying assumption being that to protect the private interests of authors and publishers will be to promote science and the useful arts. The emerging changes in the law affecting copying should be looked at in terms of whether they are economically necessary for the continued existence of publishing and writing. While perusing materials for this talk, I came across a short article by William Passano, President of Williams and Wilkins Co., called "How Photocopying Pollutes."[8] I was naturally drawn by the title. Mr. Passano's reasoning was that like other kinds of technology, photocopying is destroying its environment - the publishing environment. I think the point is well taken where technical journals are concerned. In its recent case, Williams and Wilkins alleged that in 1970, NIH had copied 930,000 pages of medical journals or about 93,000 copies of articles.[9] Obviously, this amount of copying would be harmful to any type of publication with as limited a market as medical journals have.

However, another branch of publishing where there is a good bit of concern over the making of multiple copies is "elhi" or elementary and high school textbook publishing. Surprisingly, this makes up 35% of the publishing revenues of the country.[10] I gather that copies are frequently copied or reprographed - this is a new generic term for copying I've learned - for whole classes, sometimes with a school district's approval. Stephen Breyer in a Harvard Law Review article shows how the removal of copyright protection altogether in order to permit free competition in the production of textbooks would considerably lower the price of textbooks. The author asserts that textbook publishers are the most highly remunerated of all publishers and could easily absorb a loss due to lower textbook costs.[11] Thus, eliminating, rather than extending copyright would be in the public interest.

Abolishing copyright protection would not result in significantly lowering the cost of trade books, which make up the bulk of popular reading, because this is already low due to paperback production. Mr. Breyer, furthermore, believes that popular authors frequently write as much from an artistic as a pecuniary motive;

therefore, copyright protection, whether for the purpose of assuring returns on a book sold or a copy made of it, has little effect in encouraging the production of literature.

This brings to mind what I've always referred to as "the conduit theory of genius." According to this theory an author is merely the vehicle for transmitting a creation to the world; thus his work is not his private property or private good, but rather a public good and gift to the world at large. It would follow from the theory that authors are not entitled to complete compensation for their works.

Nevertheless, tremendous use is being made of photocopying equipment. In 1967 the Committee to Investigate Copyright problems contracted with the Office of Education for a study of photocopying. These statistics came out of the study: Over a billion copyrighted pages were copied in the U.S. in 1967, and 97% of library photocopying consists of single copies.[12] The study also predicted that 1.8 billion pages would be photocopied in 1969. These figures aren't surprising. A few examples will serve to show why. There are few persons who haven't attended a class or meeting where xeroxed copies were handed to all present. In my library, lawyers copy complete articles to be used as daily guides to the practice of law. I estimate that for incidental uses during the last year I've copied at least 50 pages. Earlier this summer I copied several pages of diagrams on knot tieing - pages that I could never have hand copied.

This brings us to the most persuasive argument, as I see it, for changing the copyright law to require payment for photocopies. This is that law must be adapted to the changing world, to the new conditions under which people live and carry on their activities. Copyright law is a branch of law upon which great demands are made in this respect. The music industry is the best contemporary example of the need for adaptive copyright law. At the turn of the century, musicians received most of their royalties from the sale of sheet music. At that time there were no performance rights in music. If performance rights had not been added to the statute in 1909, today musicians wouldn't be receiving royalties for radio and television performances of their work, and since very little sheet music is sold they'd be receiving practically nothing from the sale of it.[13] Furthermore, when the 1909 law was passed, it was thought that royalties from jukebox performance of records would be negligible and an exemption from royalty liability for jukeboxes was written into the law. This exemption has never been taken out - though it will be if S. 1361 is enacted - and the music industry has lost millions over the last half century.

CATV and computers are, of course, other examples of new technological developments that copyright revisionists are struggling to deal with. The copyright revision bill, if passed would set up a National Commission on the New Technological Uses of Copyrighted Works to study copyright problems resulting from advancements in means of communications.[14]

The jukebox exemption has undoubtedly been a bitter lesson to publishers and authors, and probably has caused them to pursue with added zeal a means of obtaining compensation for photocopying.

If the Williams and Wilkins decision will stand on appeal and the revision bill is passed, I assume that together they'll mean that all photocopying, whether of single or multiple copies, will have to be paid for. A statement made last year by Barbara Ringer, Assistant Register of Copyrights, I think corroborates this assumption. She said that she believes that publishers are "unwilling to concede unlimited single copying."[15]

Assuming that all copied material must be paid for, how shall that be done. There are at least two systems for collecting royalties which are presently contemplated. One is "blanket" or "collective" licensing which is used by ASCAP, the American Society of Composers, Authors, and Publishers. ASCAP, as a music clearinghouse, licenses over 30,000 radio stations, television stations, symphonies, etc.[16] to play copyrighted music, and divides the license fees into royalties to be paid annually to about 30,000 to 40,000 performers, authors, and publishers.[17] Royalties are prorated according to information gathered through lists of pieces played and samplings.

Could the ASCAP scheme be applied to photocopying? There are 15,500 public school system libraries and 22,500 other libraries in the U.S. The number of libraries to be licensed would be the least of obstacles to making group licensing work. The more important problems are how do you distribute payments to many many authors and publishers, and how do you determine whose works have been copied and how often. Additionally, ASCAP spent $9 million in 1967 to collect and distribute $49 million.[18] The cost of collection will be even greater where a large segment of the publishing industry's involved. This would be a very high collection cost.

Because of these difficulties, Irwin Karp, attorney for Authors League of America, suggests a method of collection which he calls "statutory licensing" because the provisions for it would be placed in the copyright statute.[19] His plan would work like this. The Government would issue stamps in various denominations to cover the royalty payments due on various quantities of pages; the person wishing to xerox would buy these, place them on a card upon which they'd write the names of the author and publisher and send the card to an address such as "Copyright Box, Washington, D.C.", from which they'd be forwarded to the recipients. The law would also prohibit the copying of more than 2 pages or 2% of a work.

Now, to me Mr. Karp's plan sounds totally to lack feasibility, unenforceable and, most importantly, unfair to librarians. I read between the lines of his suggested statutory provisions that librarians must supervise the xerox machine, sell the stamps and cards, collect the cards and send them in. I titled this paper "Copyright and Copying: Should Librarians Care?", and here is why. It is my viewpoint that librarians need not object to a requirement that the public pay for the privilege of photocopying. It probably isn't even the librarians' business to determine whether publishers or the public should, or to what degree each should, profit from the advantage wrought by reprographic technology. However, it is also my view that librarians have no responsibility to help publishers collect on a photocopying right. They have no duty to assist publishers and authors raise their profits, and this is where they should stand firm.

This is not to say that I feel no sympathy for the publishers' dilemma. I do. They have a difficult problem to solve, but it is their problem and not that of librarians. Librarians need not run clearinghouses for publishers. Within the technological possibilities of today, some workable means of royalty distribution should exist.

On a closing note I would like to give to you a suggestion that I had from a person who was totally unfamiliar with the photocopying until I explained it to him. The idea is to have a card in each book which must be inserted into the copying machine in order to record the publisher and author entitled to payment for the copies. Copyright charges would be included in the xeroxing charge. Expensive? Yes, but I bet it would work.

Footnotes:

[1] *17 U.S.C., sec. 1 (1909).*

[2] Ringer, *Copyrights* 26 (rev. ed. 1965).

[3] S. 1361, 93rd Cong., 1st Sess, sec. 107 (1973).

[4] Williams and Wilkins Co. v. United States (Ct. of Claims, 1972).

[5] *Id.*, sec. 108.

[6] *Id.*, sec. 106

[7] U.S. Const. art. I, sec. 8, par. 8.

[8] Passano, *How Photocopying Pollutes Sci-Tech Publishing*, in Bush, *Technology and Copyright* 266 (1972).

[9] supra,, n. 4, p. 4.

[10] Breyer, *The Uneasy Case for Copyright*, 84 Harv. L. Rev. 281, 293 (1970).

[11] *Id.*, p. 315.

[12] Sophar and Heilprin, *The Determination of Legal Facts and Economic Guideposts with Respect to the Dissemination of Scientific and Educational Information as it is Affected by Copyright - a Status Report* (1967).

[13] Finklestein, *ASCAP as an Example of the Clearinghouse System in Operation*, 14 Bull. of Cr. Soc. 2 (1966).

[14] S. Rep. No.91-1219, 91st Cong., 2nd Sess. 10 (1970).

[15] Ringer, *Our Copyright Law - Present Status and Proposals for Change*, in Lukac, *Copyright: The Librarian and the Law* 20 (1972).

[16] supra n. 9, p.331.

[17] Karp, *Panel Discussion*, in supra n. 14, p. 84.

[18] supra n. 9, p. 332.

[19] Karp, *A "Statutory Licensing" System for the Limited Copying of Copyrighted Works*, 12 Bull. of Cr. sec. 197 (1964-65).

[20] *Id.*, p. 202.

Army Librarian Civilian Career Program

by

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ABSTRACT

The Department of the Army Librarian Civilian Career Program is one of 17 Army-wide occupationally oriented career programs operating under a formalized career management system designed to meet requirements of the Federal Merit Promotion Program. The Army's approach covers recruitment, career patterns, appraisal and counseling, training and development, a central inventory of qualification data, and centralized referral to fill vacancies. Annual meetings of top Army librarians develop policies and screening criteria to competitively rate careerists in establishing merit promotion and placement rosters. Feedback to individual careerists informs them of screening criteria, competitive standing and overall information about the program to guide them in developing career plans.

The Army Librarian Civilian Career Program is one of 17 Army-wide civilian career programs covering over 74,000 civilian employees, grades GS-5 through GS-18, in professional, technical and administrative occupational fields. This 74,000 figure represents approximately 34 percent of the Army civilian workforce and 82 percent of Army positions GS-12 and above. The Army was the first federal agency with a formal civilian career program for professional librarians.

There are five general career program elements under which the Army career programs operate.

1. First, career intake system: This includes procedures for an annual input of new employees with high potential as future replacements for employees leaving Army civilian employment for various reasons. Army has nearly 1800 career program interns on board as of 30 June 1973, (including 16 Librarian Interns) in their initial development phases.

2. Second, a formal system for appraisal and counseling in which appraisals, career plans, training and development goals, and employee and supervisor evaluations are made.

3. Third, training and development, with mandatory and desirable training and development for the occupational field, using both in-service and non-federal facilities.

4. Fourth, career patterns — each career program outlines clear lines or avenues of progression to successively more responsible positions; and,

5. Fifth, central inventory and referral procedures at the installations, command, and departmental levels.

These basic elements are developed and refined under the direction of the functional chief of each career program. Major General Verne L. Bowers, The Army Adjutant General, is the Functional Chief for the Army Librarian Program.

The population profile of the Army Librarian Program (Table 1) shows Army has approximately 500 professional librarians. Of this number, 81.5 percent are women and 10.4 percent minority group members.

TABLE 1
Army Librarian Career Program
Population by Grade

	GS Grade											
	5	6	7	8	9	10	11	12	13	14	15	TOTAL
Total	2	1	54	7	195	29	147	66	17	5	0	523
Women	2	1	43	4	164	26	123	52	9	3	0	427
Men	0	0	11	3	31	3	24	14	8	2	0	96
Min. Gp. Mem.	0	0	6	1	14	3	15	5	0	0	0	54

Summary: Women - 81.5%, Men - 18.5%, Min. Gp. Members - 10.4%

Source: Army DCSPER Report RCS USCSC 1136 dated 12-31-72

Administration of the Army career programs is through a functional chief concept. Functional chiefs are officials designated to assume Army-wide responsibility and leadership for planning, developing and administering a career program. As mentioned before, General Bowers, The Adjutant General, is the Librarian Functional Chief. He is assisted by a Functional Chief's Representative, who is designated to act for him in developing, evaluating and administering the day-to-day operation of the program. Miss Elizabeth Schwartz, Director, Army Librarian Program, is the FC Representative. She is assisted by a personnel specialist identified as the Executive Secretary.

In the overall program planning and evaluation of the career program, the functional chief and his representative are assisted by a Career Program Planning Board. This Board, which convenes annually, is composed of key managerial librarians, representing various Army Major Commands and Technical/Academic Libraries. The board reviews program administration and operation and makes recommendations for program improvement.

Army's career programs operate under and meet provisions of the Federal Merit Promotion Program. In this regard, annual screening panels convene to competitively rate careerists and determine their promotability for the forthcoming year. Panels review qualification records, appraisals, and supplemented data obtained on each careerist. Sub-screening panels, composed of three professional librarians each, utilize a multiple judgment evaluation of each careerist's credentials against a written standard. The result is the competitive promotion and placement roster (Summary at Table 2) which controls the referability of the careerists during the subsequent year.

TABLE 2
RESULTS OF SCREENING PANEL -- JANUARY 1973

	GS-09	GS-10	GS-11	GS-12	GS-13	TOTAL
TOTAL RATED	209	28	142	63	20	462
PROMOTABLE	35.9%	32.1%	42.2%	36.5%	30.0%	37.3%
LATERAL	33.9	35.8%	21.1%	6.3%	25.0%	25.9%
QUALIFIED (Ref for needs of service)	21.0%	32.1%	28.1%	57.1%	20.0%	29.0%
NOT RECOMMENDED	8.6%	00.0%	8.4%	00.0%	25.0%	7.6%

At Table 3 are some referral and selection activities for the past three fiscal years. These are: Referral lists developed; number of candidates referred; average number of candidates referred for referral list; number of selections; number of selections involving a geographic change in duty station; selections from the same installations; and selections involving promotions.

As noted in the statistics, there was a significant decline in the number of referral lists issued in Fiscal Year 1973. This decline resulted primarily from base closures, large command reorganizations and the phase-out of military personnel in Vietnam.

TABLE 3
ARMY LIBRARIAN CAREER PROGRAM
REFERRAL AND SELECTIONS ACTIVITIES

	FY 71	FY 72	FY 73
Referral list dev.	70	66	36
Nr. Cand. referred	525	451	256
Avg. Nr. Cand./List	7.5	6.8	7.1
Selections	33	44	25
Sel. involving PCS	21 (63.6%)	25 (56.8%)	10 (40.4%)
Sel. from same Install.	8 (24.2%)	15 (39.1%)	12 (48.0%)
Sel. involving Prom.	18 (54.5%)	22 (50.0%)	17 (68.0%)

Figure 1 reflects some of the programs which are impacting upon the Army Career Management System.

FIGURE 1
LIBRARIAN CAREER PROGRAM
PROGRAMS IMPACTING UPON DA CAREER MGT SYSTEMS

- Federal Executive Dev. Program
- CSC Study of DA Career Mgt. System
- Revision of Appraisal System
- Equal Employment Opportunity and Federal Women's Programs
- DA Regional Seminars on Career Mgt.
- CONUS Command Reorganization
- DOD Overseas Returnee Program

The Department of the Army has determined to implement the Civil Service Commission's Federal Executive Development Program through the on-going career program structure. For those occupational areas in which there are no formal career programs, the various major commands and installations have responsibilities to develop and implement executive development programs for their respective occupational fields.

The Civil Service Commission has made a special study of the Army Career Management Program and its ability to meet the Federal Merit Promotion Program requirements under the functional chief concept and administration of the career referral system on a centralized basis.

The Librarian CP is revising its career and performance appraisal systems and has undertaken a job analysis project to develop and obtain meaningful job-related evaluative data to support the annual screening panels.

In efforts to improve the Equal Employment Opportunity and Federal Women's Program, functional chiefs have formalized positive plans of action. These included developing goals to monitor progression toward Army objectives.

Our Librarian Career Program staff is participating in Army's regional seminars to increase communication to managers, supervisors and employees on the administration and operation of the various career programs.

Army has, within the last six months, completed a major reorganization effecting various major commands. The overall impact was the abolishment of over 5,000 civilian positions. Significant efforts were made to lessen the impact on affected careerists by placement to vacant positions under both DOD and Army priority placement programs.

The Librarian CP is participating in the DOD Overseas Returnee Program to assist placement of careerists who have been overseas for extended periods and do not possess reemployment rights to a CONUS position.

THE ARMY LIBRARIAN SCREENING PANEL SYSTEM

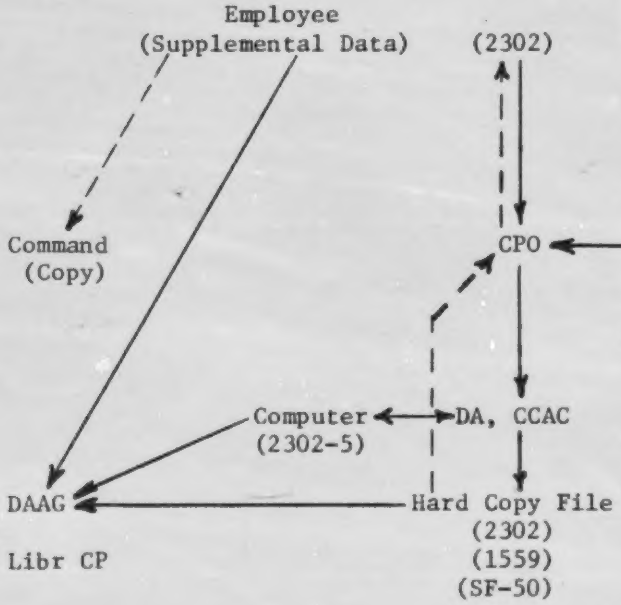
As the Army Librarian Career Program operates under provisions of the Federal Merit Promotion Program, I would like to give a quick outline of the program's screening panel system. This is the system utilized to competitively evaluate Army career librarians for promotion and placement opportunities.

Figure 2 is the schematic outline of the sources of qualification data reviewed by the Army-level screening panel. The screening panel is composed of key librarians representing various types of libraries in the Army.

Figure 2

LIBRARIAN CAREER PROGRAM DA SCREENING PANEL SYSTEM

Qualifications Data - Sources


Employee
(Supplemental Data)
(2302)
Supervisor
(1559)
Employee
Command
(Copy)
CPO
Manager
SF-50
Computer
(2302-5)
DA, CCAC
DAAG
Libr CP
Hard Copy File
(2302)
(1559)
(SF-50)

First, input of the employee career appraisal (DD Form 1559) is initiated by the careerist's immediate supervisor and reviewed by the second line supervisor. Upon completion, a copy is forwarded to the installation's civilian personnel office.

Second, the employee is responsible for initiating the basic qualification career record (DA Form 2302). This form is the vehicle for the careerist to submit pertinent qualification data, awards, geographic availability, etc, to the Army computer data bank.

These two documents, along with copies of official notifications of personnel actions (SF-50) are transmitted by the local civilian personnel office to the DA, Central Career Administration Center (CCAC). Here the information is placed in the Army computer data bank. Copies of the resultant computer printout (DA Form 2305) go to the Library Career Program Office as well as one returning to the employee. All original copies of the source documents are placed in the Center's hardcopy files. These original documents and a copy of the computer printout are provided the screening panel.

Third, another source document made available to the screening panel is the supplemental data sheet (DA Form 3798R). This form was developed to provide careerists a direct means of communicating to the panel their most recent credentials and self-development efforts.

At the last DA screening panel meeting, there were 17 librarians, representing various types of Army libraries, sitting on 5 sub-panels to evaluate 460 careerists. A two to three hour orientation and training session was undertaken to familarize panel members with the nature of the data obtained, forms, and the written evaluation criteria. The system utilizes a multiple judgment concept in evaluating each careerist against the standard.

Each careerist, GS-9 through GS-13, is evaluated and the panel's determination annotated on a rating sheet. The written standard and rating sheet assure the logical review of qualifications, credentials and appraisals of each careerist. Panel statistics indicate that approximately eight to ten minutes are spent in reviewing and evaluating each careerists. The panel's final rating is expressed in one of four roster categories as reflected at Table 2.

Panels also annotate the careerist's strong Library functional areas. These determinations assist in a more precise identification of best qualified candidates in competitively filling Army librarian positions. Panels also provide the initial identification of career executive group members and give recommendations concerning repromotion of careerists demoted through no fault of their own.

Referral rosters established by the screening panels (summary at Table 2) are generally in effect for one year. No panel evaluation is considered permanent. Changes in referral standing may be considered when requested and specifically justified by the careerist and his organization. Central screening and referral enable managers to fill Army Librarian positions from the best available careerists. It also assures that careerists have an opportunity to compete for advancement opportunities. The Functional Chief convenes the screening panel at least once a year to evaluate the qualifications of careerists and establish competitive referral rosters for the following year. Individual lists are developed from the referral rosters according to specialized requirements of the vacancy. The final selection from these referral lists is made by line management.

THE POST LIBRARY: WHAT MORE CAN IT CONTRIBUTE

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Abstract

Post or Station libraries are given an almost insurmountable task not unlike that of the small town general store. They are expected to have at least a little bit of everything on hand, and to be staffed by a jack of all trades. This task is generally handled well, given the usual lack of space, staff, and funding. The library can, however, be more than just a passive element on the post if it will accept the challenge to become a stimulator of personnel, a focal point of intellectual activity for both staff, and, in the case of medical facilities, for patients who have time on their hands and are looking for rewarding activities during their hospital stay.

My instructions for today's presentation were to be "constructively critical." Those TV addicts among you will recognize immediately the analogy to the commercial in which someone is slapped in the face and responds "Thanks, I needed that." And it is indeed unusual in this day and age of consumerism and much needed poking of big business to find an organization that doesn't need a prodding from time to time to insure delivery of a quality product. I am instructed to poke and prod from the standpoint of a consumer of library services in a rather large general medical and surgical hospital which offers both a professional (called a "medical") library, and a general or patient's library which is also available to staff. I frankly do not know that I am up to the task assigned, and this in and of itself is unusual for a psychologist who typically may be counted on to relish the job of social critic, always having at his or her fingertips ways for the other guy to improve upon a situation. Notice the emphasis on "the other guy." Most people come away from conversations with psychologists feeling much like the little girl who was assigned the task of researching and writing a term paper on penguins. Asked later her reactions to having written the paper, she replied, "Teacher, I find myself knowing a great deal more about penguins than I want to." My association with the VA Hospital's libraries over the past 11 years has been consistently positive, and my feeling has been that they leave little to be desired either in the services rendered or the manner in which these services have been given. But, then, librarians are universally noted for their helpfulness, cheeriness, and general positive despositions, aren't they?

I think that we can distinguish two aspects of the library mission, and it may be helpful to differentiate these for our purposes today. One is what the library is currently contributing, and the other is what it could be contributing. Let us take the current situation first, and look at the professional library first of all. This shouldn't take too long, for the professional library has a highly defined task, is generally well funded, well staffed, and gets first priority on available space in which to pursue its mission. At least first priority after space is allocated to janitorial supplies and the boiler plant, and then just after space is found to store next spring's fertilizer for the groundscrew. Nevertheless, its task is to keep the professional staff up to date on developments in the field, and to have available the references needed when required. It is not charged with stimulating the staff to read or keep up to date, for that is assumed to be built in to the professional's training and innate interest in his or her field. Discussion of reading matter is left to inservice training programs, and staff conferences. What it should do, and is doing, is providing the latest in resource material and the machinery which to disseminate information. Bibliographic services are, of course, invaluable, and likewise are provided through the latest in computer technology. Audiovisual technology also is being updated. Consumerism in the form of a survey to identify needs is being carried out, and if staff lethergy to respond to such surveys can be overcome, these needs will be met I am sure as they have been in the past.

It is in the general library that perhaps we can spend the majority of our time, for here is a fascinating place, a place to whet the appetite of many interests, and perhaps a place in which we can make a few "constructive criticisms." Not that it will be an easy task to suggest improvements, for the general library serves its consumers exceedingly well. I've always thought of the general library on the post in much the mold of a small town general store. Catering to the needs of some 10,000 transients and 1,200 semipermanent residents who also are granted buying privileges is, you will agree, quite a task. Like the general store, it obviously can not compete in breadth and depth with King Soopers, and yet is expected to have at least a little bit of everything that the supermarket has, plus a smattering of what the hardware, clothing, drug, camera, toy, stationary, music, and other stores would have, if there were such. In addition, librarians, like small town general store proprietors, are expected to be at least as knowledgeable about these products as the specialty store owners are. Thus when my 12 year old asked me if the maps in other countries had the United States at their centers as our maps do, I turned to the cartographer in the library for an answer. Likewise when one of my colleagues wondered about the possibility of building an adobe house in the mountains, I posed the question to my rural building expert in the library. (To my surprise, she had just such a book, and put her fingers on it instantly.) Bicycle repairs?, room additions?, recipes for chili?, stories and funny anecdotes for talks to PTA groups?, diseases of fish in the office aquarium?, an article someone mentioned in the Ladies Home Journal sometime last year; maybe last summer, or was it the year before?, all are dropped on the doorstep of the general library. Patients too are not all of a type. They do not all like Zane Grey, or Irving Stone. The library is expected to appeal to all, with enough depth in a given area to allow for satisfaction of any one of the 10,000 individual's interests. In my own field, when a therapist has worked with a patient to develop an interest in something, anything, and he decides that since he will be in the hospital for a few months, he might just as well find out all that he can about aardvaarks, he expects more than just a dictionary reference. More often that not, in my experience, he is not disappointed in his expectation.

Given these achievements, what more can we ask of the post library? Isn't that enough? The answer is a qualified maybe. Someone once classified people into three types. Those who make things happen, those who things happen to, and those who never know what's going on. Libraries too often have things happen to them, usually know what's going on, but rarely cause things to happen. They are passive creatures, maybe because reading in an of itself is a passive activity. One sits back and lets the words flow in like the river to the ocean. On occasion one discusses what is read, but certainly not in the library, and for the most part the librarian's most active effort in the day is a muffled Shhhhhhhh!. Now I'm not suggesting that the next rock and roll concert be rescheduled from Red Rocks to the general library, but I wonder if the library could become more of a focal point for social and intellectual activity. Maybe it can become a more active participant in what goes on, rather than play its usual role of a place to spend a few quiet moments in an otherwise hectic day. Most large organizations suffer from what might be called employee-itis. A severe deterioration of the spirit characterized by and associated with routine and repetitive jobs, lack of appreciation for one's thoughts, and dulling of creativity. Patients too manifest a form of the diesease, called variously patient-itis or hospital-itis. This comes from day after day of associating with others who have nothing more interesting to ask than "When is your surgery scheduled for?", or "How in your incision healing?"

Visualize now a setting in which spirited conversation centers on a reading which all have done at home the night before. Was Agatha really the degenerative witch she seemed, or was she used as a foil on which to disply Humphrey's masculine chauvinism? Is Mr. Nixon's welfare plan as good as Senator Whatisface described, or are there pitfalls in it. And what, dear Madam Librarian, would you suggest we read for next Tuesday? Perhaps something in line with National Bagel Week. What, you say, there is an interesting article in the Weekly Monthly on the origin of national foodstuffs. Let's do it. Can you make copies for all of us? Great. See you on Tuesday.

Now I'm sure that some of this active stuff, making things happen, is going on. I know that some of the most interesting reading I've done came about as a result of a book described in the employees' newsletter, or described on a bookmark I picked up at the charge desk. The librarian actively stimulated me to read something I could not have known about. This is fine, and I appreciate it, as I'm sure others do also.

What I'm suggesting is that this be extended to other active pursuits, to both patients and staff, and that the library become a focal point for treating the epedemic employee and patient-itis. Quiet space for those requiring quiet could continue to be provided, but the mark of a successful library might become the amount of spirited conversation which one would hear emanating from the more usual Quiet room. And book discussions need not be the total of the program. How about demonstrations, presentations, talks, films, displays.

Enough criticism and suggestion. On to the discussion. One final note. I am aware that implementation of any of these suggestions will require additional expenditures for space, staff, and equipment. These minor details I leave to you. I am sure that there is a reference book you have available in which the answers may be found.

FEDERAL TECHNICAL INFORMATION SPECIALISTS AND BENCHMARK JOB DESCRIPTIONS

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National Technical Information Service

The Civil Service Commission requested the American Society for Information Science (ASIS) to prepare new "benchmark" job descriptions for the GS-1412 (Technical Information Specialist Series) positions. Benchmark Job Descriptions are succinct statements of a typical job, giving clear-cut standards and guidelines in terms of the "significant factors". The composition and work of the ASIS panel is described and the current status of the proposed new system of job classification standards is discussed.

The Senate Committee on Post Office and Civil Service through its Subcommittee on Employee Benefits established the Job Evaluation and Pay Review Task Force to the U. S. Civil Service Commission in 1971. This Task Force was required to prepare "a comprehensive plan for the establishment of a coordinated system of job evaluation and ranking for civilian positions in the executive branch". The Task Force based its work on the rather lengthy Subcommittee Report and Hearings -- sometimes called the "Oliver Report" since the chairman was Mr. Phillip Oliver.

The Task Force developed certain precepts, summarized as follows:

A. A series of related evaluation systems would be needed to cover broad horizontal and vertical strata of workers within the total of approximately 2,200,000 Federal civilian employees (this figure does not include the approximately 700,000 postal workers).

B. The evaluation systems would have to be simple enough for managers and employees at all levels to understand.

C. The evaluation systems would have to produce consistent and accurate identifications of skill levels.

D. The basic evaluation systems should be built with master job factors that measure uniform characteristics of jobs to be covered. In each system the job factors would be specifically tailored to the occupations to which applied by placing emphasis on differing elements within the factors, depending upon the positions to be evaluated.

E. Many career ladders in the Federal Service start at fairly low skill levels and rise to executive level positions. In developing evaluation systems, therefore, provision should be made for an interrelationship of grade levels. This interrelationship would be needed to facilitate an employee's movement from jobs in one evaluation system to jobs in another.

F. The evaluation systems should be sufficiently flexible to accommodate new occupations resulting from technological developments and changing social values.

G. A wide range of management processes should be served by the job evaluation systems. These systems would have to be designed so that they could be utilized as tools to improve the overall efficiency of Federal programs.

H. The pay systems that would be related to the evaluation systems should provide pay scales that would be appropriately competitive with those of other major employers in the non-Federal sector.

The Task Force recommended an Administrative, Professional, and Technological Evaluation System (APTES), a factor ranking system using benchmark descriptions as the basic evaluation tool, and also employing guide charts with points as a further assurance of broad applicability and equity. APTES uses:

-- a set of guide charts which provide a basic framework for the skill levels of the system and also assist in evaluating new types of positions as these arise;

-- a set of evaluated benchmark position descriptions issued by the U. S. Civil Service Commission for jobs common to most agencies;

-- additional evaluated benchmark position descriptions for all other types of positions specific to individual agencies;

-- a job ranking method under which the skill level of a job is decided by comparison of the job, factor by factor, with appropriate approved and evaluated benchmark position descriptions, using the factors of job requirements, difficulty of work, responsibility, and personal relationships, with provision for also crediting other important aspects of the job not otherwise considered.

The method prescribed by the Task Force and used by the Civil Service Commission is called factor ranking, which is a technique of comparing the job to be evaluated with all others, one factor at a time. There are five factors for each job:

I. Knowledge Required by the Job

II. Responsibility

III. Difficulty of Work

IV. Personal Relationships

V. Environmental Demands

All of this means a fundamental revision of the job classification system. Position-classification standards as they now exist (and have for years) will be eliminated. In substitution, there will be developed actual job descriptions which will be identified as "benchmark" positions, against which other jobs of similar nature will be evaluated for pay and rank purposes.

Since there are 75 administrative, 137 professional, and 98 technological occupational categories, the Civil Service Commission faced quite a work load.

Civil Service Commission requested ASIS to prepare the GS-1412 benchmark position descriptions. Although realizing that Information Science has many specialties, Civil Service Commission recommended that, as a starter, benchmarks be written by ASIS for this one broad job family. Later, separate benchmark descriptions could be provided for various specialities depending on significant differences in qualification ("core") requirements.

The Potomac Valley Chapter of ASIS was asked by the ASIS Executive Committee to establish a panel to prepare the benchmark descriptions. Some 55 or 60 ASIS Potomac Valley Chapter members responded to a call for volunteers to work on the panel.

By the by, I personally almost never volunteer for anything that looks like a lot of work -- but I was volunteered by my boss and suddenly found I was drafted to form and chair the panel.

As a first cut, I made some very simple decisions about panel members.

1. They should be working in an assigned GS-1412 job.
2. There should be one member from each of the major Federal departments if at all possible.

3. Panel members must have approval from their agency to meet regularly during normal duty time.

In May of 1972, the panel met for the first time. During the first few months, we collected more than 300 job descriptions and evaluated the similarities and differences among Federal agencies.

The devoted and hard working members of the panel were: Richard Amacher, National Clearinghouse for Smoking and Health; Alice Billingsley, U. S. Postal Service; Concetta G. Capoen, Department of Housing and Urban Development; Yvonne Hill, Department of Transportation; Dion Johnson, Environmental Protection Agency; Cathryn Lyon, U. S. Naval Weapons Laboratory; Daniel McCallum, Foreign Science and Technology Center, Department of the Army; Alfred M. Pommer, Harry Diamond Laboratories; Miriam Rappaport, Department of Labor; Richard West, National Library of Medicine.

To no ones surprise, we found more differences than similarities when we sifted through the copies of the actual descriptions within each grade level. In some cases when we tested the factor ranking method against several GS-9 jobs from as many different agencies, we would find a couple that would merit a GS-11 grade, or we might find some of the GS-11 grade that according to the factor ranking, merited not more than the high level of GS-9.

Though we did not make a big effort to collect other GS-series that possibly are being used in lieu of the 1412 series, we did find some evidence in almost every Federal Agency that the GS-301 series in particular was being assigned to jobs that more properly should be assigned to the 1412 series.

In addition to a load of homework, the panel met about every two weeks at ASIS headquarters for generally the two hours between eleven and one with brown bag lunches.

By March 28, 1972, the panel submitted to the ASIS Council, final draft copies of three discrete "benchmark" position descriptions within each grade level from GS-9 through GS-15 and one trainee position description each for the GS-5 and GS-7 grades. The ASIS Council reviewed and approved the work of the panel and forwarded the recommended job descriptions to the Civil Service Commission on June 1, 1973; a month ahead of the scheduled completion date of 30 June 1973.

Of course, the Civil Service Commission has over 300 occupational categories from archivist to zoologist to test and apply the benchmark approach but we, the panel and the ASIS Council, were a bit dismayed to learn last week that our work was to be put on the shelf for about a year. Mr. Harold Suskind, head of the Test and Information Group in the Commission's Standards Division said they are now conducting a field test on about 40 heavily populated occupational categories. They are planning a series of meetings to begin in October 73 to review the results of the field tests. Our work on the 1412 Series was not included in the field test. However, they did agree that ASIS headquarters could, if they so desired, send copies of the panel's work to the Personnel Officers in the Headquarters of the Federal Departments. ASIS headquarters is now doing this under a cover letter suggesting that the classification officers may find them useful and to ask for comments and suggestions, not only on the 1412 Series, but on the other job families in the Information Science field.

In any case, the theory sounds good, as far as the Civil Service Commission press release of June 1972 reads and I quote:

> "When the system is perfected, it is expected that classifiers or managers in any agency will be able to look at a job, describe it in terms of certain characteristics or factors, find the right benchmark to compare it against, and arrive at the proper classification and salary level," the announcement said.
>
> "The use of this method should produce the same grade level that would be reached for a comparable job in any installation of any agency in government," it said.

However, the reporters on the Washington, D. C. newspapers have written in their columns that Phillip Oliver has complained about the Civil Service Commission's response to the report of his Task Force. He said the benchmark approach was virtually the only major Task Force recommendation embraced by the Civil Service Commission.

THE POSITION DESCRIPTION AS A MANAGEMENT TOOL

by
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and
Mary A. Huffer, Director

Office of Library Services
U. S. Department of the Interior

Looks at the position description as a management tool and the role it plays as a primary aid to broad planning within the organization. Explores the multiple uses to which a position description can be applied, such as: (1) clarifying the relationships between jobs; (2) helping employees on all levels to acquire a greater understanding of their present jobs by analyzing their duties; (3) helping to revise the organization structure on any level; (4) evaluating job performance by comparison between what the employee does and what the job description says he should do; (5) introducing new employees to their jobs; (6) assisting in hiring and placing employees in the jobs for which they are best suited; (7) setting forth lines of promotion within all departments and at all levels; (8) forecasting the training needs of a particular function; (9) providing data as to proper channels of communication; (10) establishing and developing the personnel requirements for each job; (11) improving the work flow; and (12) critically reviewing the existing practices in the organization. This paper further describes how the position description should be written and what it should contain in order to accomplish the uses described above.

I. Preparation of Position Descriptions

How often have you been faced with the problem of an ill-defined position description? Many times I'll bet. This problem, however, is certainly not unique to you as a librarian, for it crops up in all forms of business and government which hire people to do specific jobs. In order to help resolve the problem this paper will explain the uses of a position description and will also give a short explanation of how a position description can be written effectively.

First, let me describe the who, what, how, and when of position descriptions.

Who uses position descriptions?

These are predominantly used by the manager or supervisor of an employee.

What does the term position description mean and how does it differ from the term job description?

A position description refers to a specific assignment in the organization and its related duties, responsibilities and characteristics. It differs from the term job description in that a job description refers to the duties, responsibilities, and characteristics of a certain job group.

How is a position description used as a management tool?

A position description as a management tool assists in the handling, controlling, or directing of a particular entity. It performs the same function that a manual, report, or budget would in controlling operational aspects of a system.

When is a position description used?

A position description is used for assisting in the planning or reorganization of an entity. It serves the purpose of explaining the flow of work throughout the organization.

II. Major Uses of a Position Description

The importance of the position description as a management tool lies in the fact that it is a key element in the personnel subsystem. The rationale for its existence is that the personnel activities cannot be implemented effectively without it. A basic point to consider in developing position descriptions is how they will actually be used. It is wise to consider the possibility of multiple uses at the outset so that initial arrangements will allow for them.

Some of the potential uses of position descriptions in libraries are:

(1) Clarifying the relationships between jobs. A comparison of different position descriptions sometimes identifies duplicating, overlapping, or gaps in responsibilities or authorities. Such comparisons can also identify the need for assigning new responsibilities or authorities in a specific position. This is particularly true of position descriptions for administrative and supervisory personnel.

(2) Establishing a rational basis for the salary structure. Most pay systems are designed to provide equal pay for equal work, ex. Civil Service grading system. This system provides a soundly aligned internal structure for salaries. Job descriptions are prepared as a means of grouping positions by occupations that are sufficiently alike in duties and responsibilities to justify common treatment in a salary plan. Position descriptions are prepared to identify different levels of duties, responsibilities, and qualification standards of positioning within a single occupational group or class to establish the salary of a single position.

(3) Helping employees on all levels to acquire a greater understanding of their present job by analyzing their duties. This analysis comes in the form of self-evaluation. Effective self-evaluation depends upon employees' ability to identify specific performance areas that need improvement. One way to promote self-improvement would be to encourage employees to make periodic reviews of position descriptions and compare each task and performance requirement with their recent activities, and planned future activities. If employees submit monthly reports, it might be helpful to check relevant items against the position description.

(4) Helping to revise the organizational structure on any level. The position description clarifies who is responsible for what in an organization, and records the relationship within and between the various departments. Where line and functional authority cross position descriptions clearly written tend to maintain balance and harmony and reduce conflict, since they leave no doubt as to the employees responsibility and authority.

(5) Introducing new employees to their jobs. Position descriptions are particularly beneficial and comforting to two groups of new employees: (a) those who are placed in freshly created positions with a position description as their blueprint of responsibility and (b) those who have been promoted out of the straight line of progression into new posts embodying duties with which they are unfamiliar. Position descriptions are also useful for quickly and efficiently orienting new incumbents to their position and its requirements.

(6) Evaluating job performance by comparsion between what the employee does and what the position description says he should do. Position descriptions define duties and responsibilities that should be performed. Performance evaluation is a periodic appraisal of an employee's performance for determining what duties and responsibilities are being performed, and how well they are being performed. The performance evaluation should measure the employees' areas of strengths and weaknesses, completeness and capability to do the work.

(7) Assisting in hiring and placing employees in the jobs for which they are best suited. The position description should provide specifications such as experience, skills, knowledge, personality, character traits, and academic background which are necessary to meet minimum job requirements.

(8) Setting forth lines of promotion within all departments and at all levels. Descriptions are used to establish the library's promotional sequence more clearly. In addition, position descriptions are useful when considering whether one or more employees are qualified to fill a vacancy, or whether outside recruitment is necessary. These requirements help to provide an accurate yardstick with which to measure the potential for moving into the new post.

(9) Forecasting the training needs of a particular function. Position descriptions may be used as a basis for planning both technical and professional training in library education, as a guide and reference source to explain duties and responsibilities to new employees, and to identify individual and group inservice training needs.

(10) Providing data as to proper channels of communication. Position descriptions are used to delineate the relationship between line and staff positions and the relationship between subordinate and superior. Effective supervision is dependent upon mutual understanding between supervisors and subordinates as to the duties and responsibilities of the subordinate's position. The value of position descriptions as an aid to communications and supervision will depend on how much they are used by supervisors in operation reviews and employee counseling.

(11) Establishing and developing the personnel requirements for each job. Position descriptions may be used to determine the special qualification standards and skills that apply to a specific position, e. g., specific subject matter knowledge required for a position as a bibliographer or cataloger.

(12) Improving the work flow. By using the description, it is possible to trace the flow of work from its inception to its completion, thereby allowing analysis with a view toward greater efficiency. The position description also allows the employee to have at least a general knowledge of the work of others and this helps the employee to carry out his/her work with regard to its possible effect on the programs of other employees.

(13) Critically reviewing the existing practices in the organization. The position description serves as an outstanding repository of detailed statements as to what work is and should be done in an organization. Ordinarily, there is no document within the library which is more complete in this respect and, thus, any examination of what the library is doing should rest in large part upon a study of the position descriptions.

III. Writing the Position Description

The writing of the position description is a key element in its effective utilization as a management tool. It should contain information concerning the present content and results required in various positions. This information should be accurate so that the position description can be implemented effectively for any one of the uses described previously.

Information must be obtained on:

1. what the worker does;

2. how he does it;

3. why he does it;

4. the skills involved in doing it.

In writing the position description there are three steps you should be aware of: 1) the writing style; 2) the format; 3) the job category.

The writing style should follow some general principles, such as:

1. terms and words used in describing a job should be chosen carefully.

2. give a complete picture of the job by including enough detail.

3. state each responsibility of the job.

4. employ a terse, direct style.

5. use the present tense throughout.

6. start each sentence with an action word.

7. avoid the use of vague, ambiguous terms.

8. do not use long, involved sentences.

In summary, the position description should present a clear, accurate, picture of the job.

The format of the position description can be arranged in many different ways. It is important, however, that three major elements be included:

1. the facts which identify the job;

2. a description of the duties, tasks and responsibilities performed on the job; and

3. the qualifications needed to determine satisfactory performance.

These three elements can be used effectively in a variety of headings, ex., job identification, job details, job summary, scope of operations and activities, nature and purpose of work, etc.

In describing the job category emphasis should be placed on whether the job is clerical, technical, or managerial. The distinction between these three categories usually is beneficial for knowing which work category a job falls into. Recognition of the difference between levels of skill and responsibility in each category is a basic element for an effective position description.

IV. Conclusion

The remarks which I have stated are illustrations of the preparation and the uses and the means of writing meaningful position descriptions. No doubt exists that this tool has been of great value to both the employees and managers of a number of libraries, firms, and agencies. Unfortunately, there is also no doubt that the position description has either been used ineffectively or not at all by many responsible and effective organizations. The knowledge and the ability for the effective use of this managerial tool is available. What is needed is for management to become unreluctant and to apply the position description where it is needed in the organization.

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THE LIBRARY AS AN EDUCATION ADJUNCT

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Throughout history, libraries have developed simultaneously with education as adjoining services. The question of their relationship is posed. Changes in education were accompanied by changes in libraries as both institutions responded to social progress. The influence of technology on education and libraries places new responsibilities on both agencies to effect changed learning environments. Librarians accept new roles in education as managers of learning resources, learning facilitators, and change agents involved in a developing educational technology. Strategies for accomplishment of revitalized roles are discussed.

THE LIBRARY AS AN EDUCATION ADJUNCT

The library as a cultural institution has a long history because the first libraries were developed to preserve the ideas of scholars and to transmit the cultural heritage of early civilizations to those of a later time and place. The greatest impetus to the development of the library as an educational institution came later with the democratic ideal which required an informed public for governmental participation. As social progress and technological advances made possible easier support of the basic life needs of man, education became a concern to all and libraries became an access point for self-education.

The topic for discussion, The Library as an Education Adjunct, evokes a question for first consideration. What is an adjunct? In the Standard College Dictionary, an adjunct is defined as something joined to something else, but in an auxiliary or subordinate position. Furthermore, an adjunct is joined to something else without becoming a part of it.

A second consideration then must be to question whether the library can be an adjunct to education according to this definition. An immediate and firm reaction from many librarians would be a negative response with the explanation that libraries have a positive role in education which cannot be separated from the process of education. Yet, libraries have often been the after-thoughts of planners who developed educational institutions and agencies. Libraries have been additions, subordinate to the parent agency in all respects.

Libraries in ancient times occupied a more dominant place in society. The early libraries were manned by scholars who not only collected the materials to be preserved but also contributed much of the literature as well. A. K. Mukhejee wrote of the close relationship between education and the library by describing ". . . the most important social institutions, functioning as sister services, neither being subservient to the other".[1]

There is not time in this presentation to trace the development of modern libraries. Much of the story is familiar. It is enough to note that after the invention of printing, librarians became the lenders rather than the keepers of books, thus opening new channels for the broader communication of ideas in time and space. For many people, the library became the access point to an education that had earlier been denied. Printing relieved libraries of the primary role in preservation. The focus on lending resulted in a multiplicity of types of libraries based on types of clienteles -- academic, school, public, special, state, and federal. A dual function to educate and to entertain was accepted by librarians and the modern library was firmly established in the social regime.

Education was chiefly the transfer of a given body of knowledge or information from teacher to learner and was accomplished primarily by lecture or by the book. Librarians bought the book and made it accessible, at least theoretically, to all who could read. Universal education became a possibility, if not a reality. Reading became almost a synonym for learning. For years libraries and education occupied a comfortable, secure niche peddling their wares without ado or interruption. In the early 1900's, science and technology took over the script to shock us out of our complacency. Radios, record players, movies, and television brough new learning experiences which were to invade both education and libraries. Learning was released from classroom confinement. It was no longer tied to teacher or book. Revolution, yes, but what an exciting chain of events was to follow! Not only was new knowledge available but there were new formats for perceiving and communicating.

Particularly vulnerable to these changes were the school libraries that had been slowly developing during the thirties.

The library "bookroom", true adjunct to education, had to open its doors, admit first the users and later, the intruder, Non-Print. The newcomer was definitely difficult to handle, for he was noisy and disruptive and he didn't fit the shelves which had been designed for books.

The rest of the story moves as quickly as an action movie plot. The"takes" are labeled "new learning theories", "individualized instruction", "software", "hardware", "self-directed study", "expanded curriculum", "instructional systems", programmed learning", "instructional materials center", "educational technology", "media center", "transparencies", "projection", "instant films". The list could easily be expanded to a dozen pages if one were to try to include all of the results of the recalcitrant intruder "Non-Print" in school and library without even mentioning his influence in society through "mass communication", "documentary", "news reel", "satellite", "computer", "multi-media", "cassettes", "telecommunications", "public access channels", etc.

Meanwhile -- back at the library -- that's where the action is. Non-Print is growing up and is a more welcome library resident. He is now called Media. Our reluctant librarian has discovered Media is really quite popular with teachers, and students, and especially influential with principals, superintendents and like administrators, including the management types who are infiltrating education.

This is where we came in, isn't it? Now is the time for initiating and implementing change. The "now" librarian prepares for a positive role in educational technology. The revamped role calls for the devising of revitalizing strategies. The first step is renewal. Renewal, not to be confused with retreading, requires not only new methods for the organization of knowledge, and the bibliographic control of non-print media, but a revamping of the philosophy of librarianship based on the idea of outreach and total service needed by the clients. One caution; outreach must not mean reaching out with our services to meet what we think our client needs. It is reaching out with the kinds of library services our client knows are needed. His expression of those needs must be sought. Thus, client needs assessment or analysis is the second step. Remember the client category includes not only user and non-user but also the total educational program of the institution itself. Goals of library programs must complement the goals of the institution. Arriving at joint goals may be simply a matter of communication in some agencies, but in others, where libraries have keep separate identities, the librarian may need to become the activator in formulating goals and determining objectives for the library as a learning center.

The librarian's role as an activator does not imply putting her theories into action - rather, it means setting into motion planning activities which assist clients to recognize their needs, express them, and to propose alternatives for delivery of services.

Douglas Philbrick, student in Library Science at Brigham Young University, Provo, Utah, made some interesting suggestions in his article "Library Service to Indians" which appeared in *American Libraries* in February, 1972. He recommended mobile learning laboratories to help the Indian communities determine their learning needs. From these beginnings, he foresaw the desire for the Indian communities to set up their own libraries. He pleaded for the opportunity for Indian Tribes to plan their own education "thing" rather than to have token libraries set up by the government.

Mr. Philbrick should be happy to know that many of the demonstration libraries now being set up are being planned by the tribal councils and that community involvement is being sought. The Standing Rock Tribal Library sponsored by the National Indian Education Association is one example.

Other means of delivering special library services are being explored and utilized. The Bethel Regional Library provides materials on order to 32 schools in Alaska. Delivery is by air mail and staff visitations. Funded by Elementary and Secondary Education Act funds and the Bureau of Indian Affairs Education program, this project is called Library Services in the Bush.

A survey summary done by the Bureau of Indian Affairs Library Committee of library development in schools run by the Bureau showed that the number of volumes per pupil is fair to good, but quality was not measured. Also noted was a need for more audiovisual materials. It was suggested that librarians want to know where cultural materials could be obtained and where media resources may be located to which inter-library access may be obtained.

I wish that I could offer you an easy answer to the first question - where to obtain the cultural materials. One suggestion is "American Indian Teaching Materials", a listing of films, filmstrips and tapes. It is available from the Bookstore, California State University, Arcata, California 95221. Another suggestion is become a regular reader of the magazines which review media. One addition to the list distributed is Library Journal/School Library Journal Previews: News and Reviews of Non-Print Media.

In response to the second question regarding inter-library access to media, I can only say that solving this problem is one of the most improtant tasks before us today. A number of variations are being tried. There are film circuits, film cooperatives, and film loan collections. Libraries, school and public and institutional, located near large metropolitan libraries with film loan collections are fortunate because access to films is possible. Some states, like Colorado, have established a film library collection at the state library agency - our films are available by mail through local public, school, or institutional libraries in Colorado. If your state does not have such a service, I would suggest that you support the organization of such service in your state.

There have been a tremendous number of variations on the traditional library theme. In some instances the main library and audiovisual center have been distinct and separate entities. Some schools merged the two into one center, so small that much of the book collection was sacrificed, or into a facility so large it dwarfed the gymnasium. One variation in newer buildings was the placing of resources in rooms near instructional areas. Names applied to such variations are multiple: resource center, media center, instructional center and others. Notice the repetition of the term "center" and consider the definition. A center is defined as a place or point at which activity is concentrated or toward which people seem to converge: a center of interest -- a point from which effects or influences proceed. Perhaps the most appropriate term which has been accepted is learning center. In general, the learning center is a combination of the library with audiovisual equipment and resources located within or nearby for easy use and centrally catalogued for easy location. Such a center may or may not include "satellites". The activities of students and teachers converge there. Most librarians now accept this concept of library/learning center but they do not generally apply the final factor of the definition, a point from which effects or influence proceed.

The third revitalizing strategy for librarians is linked to this factor which involves the librarian in the learning process as a powerful agent on a team of learning specialists. Even in the most sophisticated learning centers, librarians have failed to fully exploit the librarian's power to influence education. Usually they react to change rather than initiate it. A librarian may perceive her role as learning facilitator through her expertise as a resource specialist, but she must also push for a more active involvement in all aspects of learning. She must be alert to the expanded learning environment which the library/learning center offers through sight, sound, smell, taste, and touch experiences. Her power to implement these sensuous experiences for the learner with the right media at the right time lies within her capability and responsibility as manager of learning resources. Her skill as selector, evaluator, and procurer of resources will reenforce or restrict the infant educational technology so ardently desired but so slow in coming.

A brief reexamination of selection should be made now. At no prior time in the history of libraries have the selection skills of the librarian been so essential as at the present. State and federal monies are being offered for the improvement of resources in educational agencies at all levels. Not only educators but lay persons are being involved in evaluations of materials. Multi-cultural needs are expressed and demand fulfillment. The spiraling costs of new media require review and evaluation to be more precise than ever before. Librarians must be involved in acquisition of educational materials. If the business manager of the institution cancels a request for Psychology Today on the grounds it is not a popular magazine, the librarian must be prepared to document the need and defend her choice.

If decisions are to be made regarding 16 mm films for purchase, the librarian, who has screened the films and read reviews in the many sources now available, should have a strong voice in the final choice. Remember she has pre-acquired certain skills in determining bias, authenticity, format, usefulness, and quality of books -- skills easily convertible to media.

To influence decision making at all levels of the learning process implies the most effective use of library power. It is to effect a learning environment which allows each individual user to reach the highest potential of which he is capable.

A final word of caution as you begin to apply innovative strategies. In some rural areas and some institutions, administrators will look askance at your strategies and progress will be slow. In other agencies, changing programs of care and treatment are proceeding so rapidly that the need for change will be thrust upon the library so swiftly you will be forced to accelerate more rapidly than you might wish.

Whatever the case, do not be dismayed by the new jargon. Remember technology is simply the application of knowledge to practical ends. Educational technology "is that field of educational theory and practice primarily concerned with design and use of messages which control the learning process".[2] Programmed instruction is similar to the proverbial lesson plan prepared in a new format for individual use.

Although instruction is only one factor in the learning environment, libraries are becoming more involved with instruction. Two examples are pertinent to this discussion.

One new program, called the Clep Program, provides for college level examinations to be taken at 900 colleges in 50 states. College credit is thus allowed for self-study and libraries are cooperatively participating by offering materials for self-help. Two types of examinations are available: general examinations in English composition, mathematics, natural science, social sciences, and humanities; subject examinations are offered in 29 different areas.

Another new learning approach influencing libraries is "open learning". On[illegible]uch project is underway at the University of Nebraska. When the program is fully developed, students of all ages will have TV lessons accompanied by textbooks, instructional kits, taped lessons on cassettes, and supplemental instructions.

Course information and exams will be published in the newspaper.

Librarians will truly have a role in education as they accept the challenge of new programs such as these. Educators will finally understand that librarians not only know "what" and "why" in learning, they can also supply the "how". As a mediator the librarian may even be able to communicate to educators the concept that knowing "how" to find information is vital to the process of learning and supercedes the importance of transfer of a given body of knowledge from teacher to learner.

NOTES

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The Role of the Library Technician

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Good afternoon. I am Betsy Burchard, and I work in the HUD Area Office Librarv in San Francisco with Ethel Koller, who prepared this paper on the role of the Library Technician. Circumstances prevented Ethel from attending this workshop, but I am happy to be here representing the library.

Ethel is an extremely rare species, being one of only two HUD Library Technicians; Pat Liggett in the Denver Regional Office is the other. Ethel has the sole responsibility for the operation of the SFAO Library and is thus performing all the duties of a Librarian, as well as those of her own assistant. Here is her account of how she became a Library Technician and the duties she performs in that role:

I fell into the role of Library Technician quite by accident. My job as secretary to an Engineer in Soil and Water Conservation in Berkeley was about to end because the office was being phased out. I think the boss assigned me the job of putting his book collection in better order because he couldn't think of much else for me to be doing. During the last six months of the operation he was detailed to Fort Collins, Colorado and I received daily work assignments by telephone. By this time there wasn't much work and it was mostly a matter of keeping the doors open and answering the telephone.

Fortunately for me, we decided on a half day operation. This gave me time in the afternoon to walk over to the University of California library and to read everything in sight on the subject of libraries, cataloging, etc. I put together a very simple card catalog consisting of author and title, and labeled all the books.

The boss returned one day and his comment was, "It really looks better than it did. I will go downstairs and get the packing boxes. You can take all the books down, pack and seal the books. I have been transferred to Reno." Fortunatelv for me, he really never had a chance to try out the system in my presence. He was so in a habit of saying, "Will you bring the Engineering Handbook? It's on the third shelf, seventeenth book from the right end."

My next library experience was at the Pacific Southwest Forest Research Station. The library was run by a real professional and a staff. They had no card catalog. The catalog which they did have was produced from famulus program which derived a printed book catalog from a magnetic tape. Input deletions and revisions were effected through punch card instructions, so there was automatic sorting of artifacts such as title, shelf list, author or main entry.

After a year with the Forest Service, my boss gave me the title of Library Technician. The Forest Research Station was housed in a flattop building without air-conditioning surrounded by no forest at all, not even a single tree, consequently beastly hot. When the dust from a prolonged remodeling project in the building, on top of the stifling working conditions, caused me to lose my voice, I decided to cross the Bay to work in San Francisco, the naturally air-conditioned city. I have never regretted the move.

From the Forest Service, I went to the Department of Housing and Urban Development. The library was only in the beginning phase. It had six empty shelves, a desk and a chair; boxes of books on the floor, no facility for housing a catalog. I spent the next few months studying the housing programs and formulating what I was going to do. With a lot of help, the library finally got into operation, and we held an open house which was quite successful. Then the news came that we were to be "organized." A large part of the staff was going to be set up in an Area Office, way across San Francisco from the present site in the Federal Building. Our nice library would remain in its location, and Washington Central Library would furnish a core collection for the new Area library consisting of law books and reference materials; I was to be transferred to this new office so once again I found myself faced with empty book shelves and the collection in boxes.

Our Area office library is located on the 15th floor of a new San Francisco skyscraper with a magnificient view of the bay. Some of our visitors come to the library just to look out our windows at the whole Golden Gateway redevelopment area, the foreign ships tied up at the piers below us, and the dramatic and controversial Transamerica pyramid. We have now had the ineffable luxury of a whole year without the interruption of a major move or remodeling.

As far as we know, we are the only HUD library outside of the Central Office Library which provides combined library and information services. This was made possible a year ago by the addition to the Library of Betsy Burchard, a refugee from an earlier reduction in the Public Affairs staff. With two of us in the Library, I am better able to keep up with my normal duties; and with our combined knowledge and experience, Betsy and I can track down almost any publication requested and answer almost any question within a reasonable time.

My duties as Library Technician include all of the following and many more:

We log incoming mail which consists primarily of periodicals, journals, newsletters, HUD issuances, books and miscellaneous other documents, public laws, etc. In connection with logging the mail, we screen journals for items of interest. We Xerox tables of content if the issue seems in our judgment to have wide interest. We send the table of contents to all who might be interested with a note indicating that the article is in the library. We make a catalog card if in our judgment the article warrants a permanent reference.

We maintain up to the minute files on current issues of the day, as well as the newspaper clippings sent to us by different sources within the Agency. In this way we are able to answer queries from our staff and the public quickly and correctly.

We are always on the lookout for new periodicals or books that would be of interest. We screen the journals and newsletters which come to the office as well as outside sources for names of new publications that might serve as reference material for the staff. In making selections, we ask questions of our staff as to their preference, we ask our HUD Washington librarians for their opinion, and we sometimes seek that of the University of California librarians or others. We try to select carefully and with judgment materials of interest; at the same time we evaluate the level of that interest. Will an introductory text be sufficient, or does the staff require deeper coverage? We attempt a balance of both scholarly and introductory material.

We bring to the attention of Department heads and others our new acquisitions. Also, we discontinue periodicals from our subscription as interests change or if in our judgment money would be better used in another field.

We purchase all legal books for the law library and maintain their subscriptions, although the law library is at present seven floors below us. We hope that the next reorganization will move this library adjacent to ours.

We are responsible for the maintenance of the Area Office set of the HUD Unified issuances and retention of historical source material, and we are required to serve as the source of general information concerning these issuances. The University of California, among others, calls on us for this information.

We have interlibrary loan service. We are most apt to borrow publications which we do not have in our own collection from the Environmental Protection Agency Library since it is just around the corner.

We prepare bibliographies from time to time.

We have set up a good working catalog with a shelf listing, subject headings, author and title as well as geographic locations. We prepare extra catalog cards for the Los Angeles Area Office Library and for the Regional Office Library to be used in their catalog with an indication that the material is held in the SFAO Library.

We are responsible for the Dictionary Catalog as issued by HUD Washington Library. We have the added responsibility of furnishing information from the catalog to any requesting office in Region IX.

We maintain the Census materials. We also maintain the Environmental Policy Standards and the Postal Vacancy Survey, both of which according to law must be available to the public. We have display racks for the HUD brochures and fact sheets; we replenish these as needed.

Twice yearly we prepare a periodical and newspaper listing for all employee distribution. We recently prepared a listing of interesting films and filmstrips which the staff might find useful. We also compile a library accession list.

We perform complex searching duties. We aid individuals in research or assist them in the use of library resources. In this, we rely heavily on the telephone to seek out needed material.

We maintain several deposit accounts through which we can order directly from vendors without having our orders processed through the Regional Office. We now have the following accounts: A map company for maps, a large local bookstore for books, a supply house for library supplies, the Superintendent of Documents for Government documents, the Commerce Clearing House in Springfield, Virginia for technical reports, and two accounts for the purchase of legal documents and books.

We are looking forward to the arrival of a microfiche reader for the Library. This will help us to expand our services as well as saving space.

We are constantly augmenting our information of current trends in the field of housing and urban affairs. Our aim, already partially realized, is to provide the most responsive and comprehensive information retrieval service possible. We are already answering many requests from and supplying information to local communities; we expect these requests to multiply if and when revenue sharing becomes a reality. To this end, we are attempting to keep up with the most current information on the subject.

The value of our collection, small as it is, lies in the HUD reports not widely available elsewhere. We serve not only our own staff, but City, County and State officials, architects, professors, planners and John Q. Public, all of whom come to us for information. We are essentially a service and resource library.

The role that Pat Liggett and I are performing as Library Technicians may be atypical, as far as the position in other agencies across the country is concerned. I do know, however, that there are certain basic attributes one should have in order to perform the functions of a Library Technician. Most important of all is flexibility. In this job you may find yourself in the same day doing anything from lugging heavy boxes out of a subterranean storeroom and loading them on a freight elevator, to having a scholarly discussion with a university professor. Other essential qualifications would be the desire to be of service to the public, a strong interest in research, and enthusiasm for tracking down elusive but worthy scraps of information.

The rewards of the job, successfully performed, are unfortunately more of a spiritual than a monetary nature. Recognition of the position has not been expressed in grade level; we keep hoping for an improvement in this situation.

Meanwhile, the rewards of the position are in the satisfaction of knowing one is providing a valuable service. Sometimes one has, in addition, the gratitude of staff members and outside patrons for whom one has been able to provide essential information or track down a needed publication. When this is expressed verbally, it gives great reinforcement to one's pleasure in the job. When expressed in writing, it's better than a sports trophy on the mantelpiece.

In concluding, we would like to issue an open invitation to all of you attending this conference to come visit the HUD library on the 15th floor of One Embarcadero Center when you come to San Francisco. We'll show you a spectacular view of Telegraph Hill and the Bay. You may want to stay to have lunch in the Japanese Inn on the second floor, or in one of the many enticing restaurants nearby. Few libraries are so ideally situated. It's too good to be true. So you'd better come soon.

TITLE: SOME COPYRIGHT ASPECTS OF THE PHOTOCOPYING CONTROVERSY; A BRIEF LOOK AT AN IMPORTANT COURT CASE WITH A COMMENT ON THE ROLE AND FUNCTION OF THE COPYRIGHT OFFICE

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ABSTRACT: To provide relevant context for subsequent discussion, the function of the Copyright Office is briefly explained, with emphasis upon those aspects of particular interest to librarians, such as the preparation, maintenance, and servicing of its catalogs for public use. The current Williams and Wilkins litigation is examined as a convenient focus for the special copyright problems generated by the ready availability of convenient and comparatively inexpensive photocopying devices to scholars and researchers. Some helpful guidelines are suggested for determining what the conscientious librarian may safely copy.

I would like to talk to you today about two things having to do with copyright: First of all, the Copyright Office, the role it plays and some reasons why the things it does are pertinent to the group represented at this meeting in Denver. Secondly, I would like to speak about some of the special copyright problems now under consideration by the U. S. Court of Claims in the yet unresolved Williams and Wilkins lawsuit.

The function of the Copyright Office is unique because the record it maintains is unique and the mandate under which it operates is an exclusive one. The fulfillment of this function requires preparing, maintaining, and servicing a catalog of registration data reproduced on more than 25 million cards representing approximately 15 million copyright registrations entered since the separate establishment of the Copyright Office as a Department of the Library of Congress in 1897. In addition to the catalog cards, there are recorded assignments and other instruments related to the catalog file of registrations.

In addition to the card catalog, a printed and bound Catalog of Copyright Entries is published semiannually and sold through the Superintendent of Documents, U.S. Government Printing Office. The Copyright Office also maintains the original applications for registration in bound volumes. These applications, together with the copies retained in our depository, constitute the primary record, so to speak, and contain much information not available in the card catalog and printed Catalog of Copyright Entries. All of this material, including copies in the depository, is available for public inspection. Extraction of information from a public record of such size and complexity can be difficult and time-consuming for those unaccustomed to it, even in a case where the facility is readily accessible to the user. To meet an obvious need, therefore, the Copyright Office will, upon request, make a search of its own records and provide a written report of the findings. We are required by law to charge an hourly fee of $5 for this service.

Like the collections of a library, our records do not remain static. They are continually growing and hence, we must adapt to the needs which growth imposes, which is to say that we must be on constant alert for more space and new methods of making copyright information more accessible and more reliable. The record we make is public and may be freely copied. However, although the deposited store of works under copyright protection is available for public inspection, they may not be copied without written permission of the copyright owner, or unless required in connection with actual litigation or pursuant to court order.

There is an erroneous, though widespread, belief that the Copyright Office retains a copy of everything copyrighted under the law of the United States. In fact, only a comparatively small amount of all material copyrighted is actually retained by the Copyright Office in its depository. Even so, the retention of deposits poses formidable problems of storage, control, and access. Of course, we would like to retain one copy of each registered work, but the problems presented by the volume and size of such an undertaking would far exceed available resources.

When speaking of our depository, I refer to the collectivity of published and unpublished material under the exclusive control and custody of the Copyright Office. Copies no longer under our control or custody are not considered a part of the official records of the Office, and thus cannot be certified for purposes of litigation or otherwise. Copies selected for inclusion in the collections of the Library of Congress or for other disposition according to law are not considered a part of the depository, and therefore, cannot be certified as part of the official record of registration. All categories of copyrighted works are represented in the depository with the exception of domestic periodicals (newspapers, magazines, and the like) and sound recordings. Copies of these works are transferred to the Library of Congress at the time registration is made.

By way of introduction to the subject of the litigation to which I alluded earlier, it may be helpful to consider briefly the nature of copyrightable matter, embracing as it does virtually every tangible form of human communication. As understood in the copyright sense, the "writing of an author" may include any fixed expression that can be read or perceived, such as, for example, the handwritten script for a dramatic play, pictorial material in the form of drawings, paintings, prints, photographs, and three-dimensional sculptural works, and the recently added category of published sound recordings. In addition to the exclusive right to "print, reprint, publish, copy, and vend the copyrighted works," the law also gives copyright owners the right to communicate their works in characteristic ways, as for example, the right to deliver an address or sermon, perform a theatrical play, or a musical composition, make sound recordings or any other transcription by means of which a work may be exhibited, delivered, presented, produced or reproduced.[1] In a sense, therefore, the subject matter of copyright is communication, whereby an author's original thought is given a tangible form of expression which is then transmitted or otherwise disseminated to the public at large.

It is difficult to imagine any form of communication in use today that does not have some copyright aspect to it. Librarians need no reminder of the dilemma confronting the custodian of material under copyright protection who all too often finds that he must choose between the legal rights of copyright owners and the desire of the public to make us of photocopying devices as a convenient means of obtaining access to library materials, including works under statutory copyright protection.

Burgeoning technology has brought the copyright dilemma to almost every doorstep, certainly to the doorstep of most librarians, as the Williams and Wilkins litigation demonstrates. The Williams and Wilkins Company, major publishers of medical journals and books, brought an action against the United States, seeking compensation for copyright infringement arising, allegedly, from the unauthorized photocopying of articles from the plaintiff's copyrighted periodicals done by the Department of Health, Education, and Welfare, through its agencies, the National Institute of Health (NIH) and the National Library of Medicine. On February 16, 1972, Commissioner Davis decided in favor of the copyright owners and against the Government.[2] The Commissioner's ruling has been appealed to the full Court of Claims. A decision is expected later this year.

The case has attracted widespread attention, as indicated by the fact that several organizations filed written arguments with the court as amici curiae: The Authors League of America, Inc. and the Association of American Publishers, Inc. (in support of the plaintiff), and for the defendant, the American Library Association, the Association of Research Libraries, the Medical Library Association, and the American Association of Law Libraries.

In brief résumé, the pertinent background facts are these: The NIH library subscribes to about 3000 journal titles, four of which are involved in this suit. Two copies of each of the four journals are obtained by subscription. However, to meet the demand of its research staff, the library provides a photocopy service as an integral part of its operation, but it does not monitor the reason for requests or the use to which photocopies are put. In 1970, the library filled 85,744 requests for copies of journal articles (including the plaintiff's journals), amounting to about 930,000 pages (being approximately 93,000 photocopies of articles).

The National Library of Medicine (NLM), repository of much of the world's medical literature, provides a so-called "interlibrary loan" service to other libraries and similar public and private research-and-education-oriented institutions. In the case of journals, the "loans" usually take the form of photocopies of articles supplied free of charge on a no-return basis. No more than one photocopy of any particular article is provided for any single request, and the library will not photocopy an entire journal on any one request.

In 1968, a representative year, the NLM received about 127,000 requests for interlibrary loans, some 12 percent of which came from private or commercial organizations, especially drug companies. About 120,000 of the requests were filled by photocopying single articles from journals, including plaintiff's journals. No attempt was made to determine the ultimate use of the photocopies requested.

At trial, the defendant argued that the copyright owner's exclusive right "to copy" his work was not violated for two reasons: 1) the act of making one copy at a time of a book or periodical does not incur liability, and 2) there was no "printing" or "reprinting" and no "publishing" of *multiple* copies of the copyrighted work. The defense was rejected on the grounds that the statute proscribes all unauthorized duplication of copyrighted works, regardless of the technological means by which the duplication is effected. "'Printing' and 'reprinting'," said the Commissioner, "connote making a duplicate original, whether by printing press or a more modern method of duplication." Moreover,"'[p]ublishing' means disseminating to others, which defendant's libraries clearly did when they distributed photocopies to requesters and users."[3] Similarly, the defendant is not exempted from liability merely because copies are made one at a time, or in the words of a quoted analogy: "Babies are still born one at a time, but the world is rapidly being overpopulated." Even the making of a single copy of a copyrighted work can constitute an infringement.

Another defense asserted was the judicial doctrine of "fair use," a sort of "rule of reason" used by the courts to limit the exclusive protection enjoyed by copyright owners. "Fair use" depends upon a number of factors, including the purpose of the use, the nature of the copyrighted work, the amount and substantiality of the material used in relation to the work as a whole, and the economic effect of such use upon the potential sales market for the copyrighted work. In this case the photocopying involved was held to meet none of the criteria for "fair use," because the photocopies were "exact duplicates of the original articles," intended as substitutes for, and serving the same purpose as, the original articles, and made at the request and for the benefit of, the persons who constitute the plaintiff's market.

It should be noted, parenthetically, that the plaintiff publisher did not seek to enjoin the photocopying of its journals, but rather to obtain reasonable royalty for doing so, and in order to facilitate such a solution, the plaintiff established its own program to grant licenses to anyone at a reasonable royalty.[4]

Replying to the contention that scholars have been traditionally free to make handwritten copies for use in research or other scholarly pursuits, the Commissioner rejected the argument as unpersuasive, noting the defendant's concession that its libraries photocopy much more material than could be copied by hand, and observing that such a concession is implicit recognition that "laborious handcopying and rapid machine photocopying are totally different in their impact on the interests of copyright owners."[5] Furthermore, the statute contains no express permission for scholars or researchers to reproduce an entire copyrighted work, even though done by handcopying.

The opinion of Commissioner Davis pointed out that whether libraries should be excused from liability for the kind of photocopying involved in this case is a matter of public policy "aptly suited to the legislative process." Meanwhile, however, "[n]othing in the present statute, its legislative history or the case law suggests that Congress intended to exempt libraries or others from liability for wholesale copying of copyrighted works, whatever be the purpose or motivation for the copying."[6]

In point of fact, much material in library collections is in the public domain and may be freely copied, either because it was never copyrighted, or because the copyright has expired. Although there is no official listing of works in the public domain which may be freely copied, there are some guidelines to help the librarian or scholar in dealing with copyright problems.

Thus, any work published prior to September 19, 1906 is no longer under United States copyright protection, at least as far as any edition or version published before that date is concerned. However, even if a work has been copyrighted under the law, it may nevertheless be in the public domain if the original 28-year term of protection expired before a timely claim to renewal copyright was filed in the Copyright Office. The basic term of statutory copyright protection is 28 years. Extension to the full term of 56 years is conditioned upon the filing of an acceptable claim to renewal copyright *during* the 28th year of the original term.[7] The Copyright Office has no discretion to extend these time limits.

If this is the case, you may ask, why are not all works published more than 56 years ago, that is, *before* 1917, in the public domain? The answer is that they have been rescued from the public domain by a series of eight successive copyright extension bills enacted by the Congress since 1962. This legislation, passed in anticipation of a general revision of the copyright law in accordance with proposals pending for nearly a decade, applies only to copyrights about to expire in their *second* term and has the effect of extending the statutory protection of such copyrights until December 31, 1974.[8] Under the proposed general revision legislation, the present copyright term of 28 years, renewable for an additional term of 28 years, would be replaced by a single term equal to the life of the author plus 50 years.[9]

For purposes of ascertaining the copyright status of a work, the most important thing to look for on the copy is the notice of copyright which is usually located on the title page of a book or its verso. The form and position of the notice is specified by statute and varies somewhat according to the nature of the particular work, as for example: a book, sheet music, or a work of art. The notice on a book or other printed publication must include the following three elements: the word "Copyright," the abbreviation "Copr.," or the symbol ©, *accompanied by* the name of the copyright owner, and the year date of publication. A basic failure to comply with the notice provisions will result in the permanent forfeiture of copyright protection.

In general, subject to a number of exceptions, the complete absence of a copyright notice from a published copy indicates that the work is not protected by copyright. The year date of first publication in the notice on the copies is also of great significance in determining whether a work still enjoys statutory protection. Once U.S. copyright has expired, the work enters the public domain. Thereafter, anyone may use it in the United States without permission or payment.

The 56-year statutory copyright term does not apply to unpublished works under common law protection which, theoretically, is perpetual. If a work is registered in the Copyright Office in unpublished form, the copyright term is computed from the date of registration, even though the work is later published.

Footnotes

1. Title 17, U.S. Code §1.
2. Williams & Wilkins Company v. United States, 172 U.S.P.Q. 670 (Ct. Cl. 1972).
3. Id. at 678.
4. Id. at 680.
5. Id. at 681.
6. Id. at 683.
7. Title 17, U.S.Code, §24.
8. Act of October 25, 1972, Pub. L. 92-566, 86 Stat. 1170.
9. S. 1361, 93d Cong., 1st Sess. §§301-305 (1973).

THE GS-1410, GS-1411, AND GS-1412 STANDARDS

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Review of standards published by the Civil Service Commission for classifying Librarian, GS-1410, Library Technician, GS-1411, and Technical Information Services, GS-1412, positions, including a discussion of series distinctions and grade-level criteria.

The librarian occupation in the Federal Service. How is it organized? How are grades determined? What are the distinctions between the various series utilized? What are the qualication requirements? These are some of the recurring questions raised by persons interested in a librarian career in the Federal Service.

We know, of course, that many Federal agencies have library collections and that these vary widely in purpose, size, and complexity. We also know that while some positions involved with such collections require a full professional knowledge of the theories, objectives, principles and techniques of librarianship, others do not.

The current librarian occupational structure in the Federal Service recognizes the need to accommodate non-librarian positions concerned with scientific and technical information as well as professional librarian positions and library technician positions. This structure evolved when the classification standards were revised in 1966.

The development of classification standards is a very extensive and complex activity, which involves extensive occupational study. In the process, the Civil Service Commission consults extensively with program managers, supervisors, and employees in many Federal organizations, representative of different environments and kinds of operations. There are also contacts with employee groups and, as appropriate, professional societies, faculty members of universities, private companies, and many sources outside Government. Contacts of this nature were made in developing the standards for the library and information services occupation including, for example, the Federal Library Committee as well as non-Federal libraries.

Studies of this type take place before and during development of a tentative standards draft. The proposed draft is then given widespread distribution to Federal agencies, employees groups, and interested professional and technical organizations, and their views, comments, and suggestions are solicited. The information received is then analyzed carefully, incorporated in the draft, as appropriate, and the standards are then published for use by Federal agencies in classifying positions.

The Civil Service Commission has established three basic series for library and technical information service positions:

The Librarian Series, GS-1410, which includes all positions involving work that primarily requires a full professional knowledge of the theories, objectives, principles and techniques of librarianship. An inherent requirement of these positions is a knowledge of literature resources and some positions also require a substantial knowledge of the subject matter involved and/or a substantial knowledge of foreign languages.

The Technical Information Services Series, GS-1412, includes positions which are primarily concerned with work involved in processing and transmitting scientific, technological, or other specialized information. The duties performed require a broad knowledge of one or more professional, scientific, or technical disciplines or fields. While the positions require a *practical* knowledge of documentation or library techniques and, in some cases, a knowledge of foreign languages, the positions do not require a professional knowledge of librarianship.

The most common functions performed by Technical Information Specialists include analyzing, indexing, extracting, and abstracting source materials; developing terminology controls such as thesauri, lists of descriptors, subject heading lists, etc.; and literature searching to locate specific information for a client and to identify information of probable importance. Typically, work is performed in document or information facilities that are not libraries. However, while many Technical Information Specialists work in information or documentation centers, they sometimes work as staff members of a library.

As noted, these positions require a broad knowledge of one or more professional, scientific, or technical disciplines or fields. The GS-1412 Series does not include positions primarily requiring professional knowledge and competence related to a specific discipline or field of interest, or a full knowledge of the state of the art, which have their career relationships in the subject-matter field. These latter positions are classified to the appropriate subject-matter series, e.g., Biology Series, GS-401, Chemistry Series, GS-1320, etc.

The Library Technician Series, GS-1411, includes positions involving nonprofessional or technical work in libraries which are administered in accordance with the practices and techniques of professional librarianship. Such work primarily requires a practical knowledge of library functions and services; and ability to apply standard library tools, methods, and procedures to the service needs of the particular library.

The latest information available shows that there are approximately 7200 positions in the Federal Service in the United States classified to these three series: 3,096 to the GS-1410 Librarian Series; 3,271 to the GS-1411 Library Technician Series, and 837 to the GS-1412 Technical Information Services Series.

In classifying a position, one must determine the appropriate series. Series determination is significant, as it identifies the qualifications required of employees in the position and also identifies career progression ladders. While there is some movement in and out of the career field, of course, opportunities for advancement are typically within the field.

Series determination is always an interesting task. The position classifier often takes the brunt of any dissatisfaction resulting from a series determination. In most cases, however, the classification decision merely reflects management's determination and decision as to the manner in which a position will be established and operate. This is also true of the grade-level determination.

Under delegated authority, agencies have the right to create, change, or abolish positions, or to assign or reassign duties and responsibilities to employees. Planning the work program and organizing the workforce to accomplish mission objectives within available resources are management responsibilities. The authority of a responsible Federal official to exercise this responsibility has been clearly established. Only the responsible agency management official can decide what positions are required, what duties should be assigned to the positions, how the positions will operate, where they will be located, and when they will be filled, abolished, or vacated. These decisions are not made by the Civil Service Commission and, except for providing advice and assistance, they are rarely within the authority of the position classifier. Once the decision is made, however, as to the type of operation which will be performed, the classifier is then guided and the decision is governed by the standards published by the Civil Service Commission.

While many series decisions are quite clear cut, this is not always the case. In these instances it is necessary that the position be studied in depth to ascertain the actual qualifications required. This normally is accomplished through a study of the position itself, the position environment, how it operates, the demands on the position, the knowledge requirements, etc., a study of mission and functional statements and organization charts, as well as discussion with appropriate management officials to ascertain their view of the position, the basis for its establishment, and their expectations of the position. This information is analyzed to determine the primary requirement of the position and the series determination made.

During the occupation study that led to the current classification standards, it was determined that a Guide for the Classification of Positions Providing Professional-Level Library and Information Services would be established to help assure that the grade levels of the respective positions would be equitable. The introduction states, "This guide is to be used for the classification of professional or technical positions concerned with the processing of books, documents, or other information media, and with providing library and information services for scientific, technical, educational, cultural, recreational, or other purposes. Positions covered by this guide are classifiable:

"--to the Librarian Series, GS-1410;

"--to the Technical Information Services Series, GS-1412; and

"--to various subject-matter series (e.g., the Biology Series, GS-401, the Chemistry Series, GS-1320, etc.) when the subject-matter series does not include criteria for evaluating duties and responsibilities related to information services."

The Guide is used to classify the nonsupervisory positions or the nonsupervisory aspects of professional-level library and information services positions. Many positions of these types, of course, involve supervisory functions. These supervisory duties may or may not influence the grade of the positions. The grade worth of the supervisory aspects of the position is determined by reference to the Supervisory Grade-Evaluation Guide.

For positions involving supervision of a staff of professional, technical, or administrative employees, the criteria in Part II, of the Supervisory Grade-Evaluation Guide is used to determine whether or not the position is supervisory in nature and if so, the grade worth of the supervisory duties. For professional level positions involved with the supervision of a staff of subprofessional and clerical employees, the criteria in Part I of the Supervisory Grade-Evaluation Guide is utilized.

The grade-level of both the supervisory and nonsupervisory aspects of the position must be ascertained. The grade level of the assignment which requires materially higher qualifications and constitutes the paramount responsibility of the position determines the grade level of the position.

The Guide for the Classification of Positions Providing Professional-Level Library and Information Services utilizes three factors for grade determining purposes:

1. Scope of Assignment
2. Level of Responsibility
3. Knowledge Requirements

Each factor is described in terms of three levels or degrees of difficulty, responsibility, complexity, or intensity. The first two factors are described in terms of three levels of difficulty--"A", "C", and "E". Degrees "B" and "D" are not described, but may be used for positions clearly falling between two of the degrees.

The Scope of Assignment factor reflects the scope and difficulty of individual assignments. Criteria for determining distinctions in levels of difficulty are expressed primarily in terms of:

a. the scope, coverage, and size of the collection with which the assignment normally deals; the clientele served; and the difficulty of materials in the collection;

b. the difficulty of the functions performed in terms of the breadth and/or depth of the assignment, and the subject, language, or bibliographic competence and experience required;

c. the extent of participation in development of programs, plans, policies, procedures, etc.; or other administrative or staff assignments.

Briefly speaking, Degree A reflects an assignment of average difficulty; limited scope or coverage; training and competence in the subject; Degree C - above average difficulty; broad scope or penetrating coverage; specialized experience; and Degree E - Program development; broad scope and penetrating coverage; extended and highly specialized experience.

Knowledge requirements evaluated under Factor 3 relate to a foundation of knowledge, education, or training required by the job. The fundamental knowledges required are a prime consideration in determination of grade level, and if they are required for the job, they must be possessed by the incumbent of the position. Criteria under this factor measure variations and combinations of:

1. subject-matter knowledges;

2. knowledge of librarianship;

3. proficiency in foreign languages (this criterion must supplement criterion 1 or 2. Foreign language proficiency alone is not qualifying for positions covered by the guide.)

Again, briefly speaking, Level I is assigned when the requirements of the position are basic knowledge of subject; bachelor's degree or equivalent experience; ability to read nontechnical foreign language material. Level II--Intensive knowledge of subject; broad knowledge of subject; professional knowledge of library science; master's degree or equivalent experience; ability to read technical material in two or more foreign languages. Level III--Comprehensive knowledge of subject; advanced knowledge of subject or library science; M.D. or Ph.D. or equivalent experience.

The duties, responsibilities and requirements of each position must be analyzed, compared with the guide, and a degree or level assigned to each of the three factors. The grade of the position is then determined by reference to a grade-level conversion chart provided in the Guide. The chart provides for classification of positions from grade GS-5 through GS-14 (including GS-6, GS-8 and GS-10 for positions where the interpolated degrees "B" and/or "D" are determined to be appropriate). While the chart shows GS-14 as the highest grade level for positions covered by the guide, this does not establish a ceiling grade of GS-14 for nonsupervisory positions. If a position exceeds to a significant extent the Scope of Assignment defined at Degree E, or the Level of Responsibility described at Degree e, such positions might be classifiable to higher grade levels. They are evaluated by comparison with the Guide and the criteria in other related standards.

Library Technician positions are not evaluated by reference to the Guide, as it pertains to professional-level positions. The standard containing grade-level criteria for GS-1411 positions was also issued in 1966 following an occupational study. The standard provides guidance for distinguishing between Library Air/Technician and other nonprofessional or clerical positions and for distinguishing between library technician positions and professional librarian positions. In this latter determination consideration is given to (a) the duties and responsibilities of the position, including the supervision received; (b) the knowledge and abilities required to perform the work; and (c) the recruitment sources, the career ladder, and the needs of management.

The standard utilizes three factors for determining the grade level of nonsupervisory positions. (Part I of the Supervisory Grade-Evaluation Guide is used to determine the grade-level classification of supervisory positions.) The three factors are:

1. Difficulty of Assignments

2. Personal contacts (if this is germane to the position)

3. Level of Responsibility.

The Difficulty of Assignments Factor reflects the type of tasks performed or steps taken; the knowledges and abilities required to perform the assignments; and the application of established guidelines.

The Personal Contacts factor reflects the nature and purpose of person-to-person contacts within the library and with library clientele, or with dealers, donors, and exchange sources; and the knowledges required and the degree of authority accorded the employee to speak for the organization in personal contacts.

The Level of Responsibility factor reflects the nature and complexity of decisions which are made and the degree of supervision received.

The standard provides criteria for classifying positions in grades GS-1 through GS-7. Absence of criteria describing positions at the GS-8 and higher levels does not preclude classification in grades above GS-7. If assignments are more responsible than those depicted in the standard, higher grade levels may be used through extension of the criteria presented in the standard. While the bulk of the 3,271 Library Technician positions in the Federal Service in the United States are found in grades GS-4, GS-5, GS-6, and GS-7, there are a few in grades GS-8 through GS-12. Some of these, of course, may be supervisory in nature.

One question which is sometimes raised relates to why an employee in a Library Technician position, who is performing duties identical to an employee occupying a professional Librarian position, is not in the same grade. This is a good question, because if, in fact, the two positions are operating in an identical manner, with identical requirements, then the classification should also be identical. However, oftentimes jobs that look alike may not, in fact, be alike. They may include some of the same duties, but the whole job may be quite different. This is a problem often encountered when people make job-to-job comparisons across agency-lines, when they do not really know the total position. The danger of concluding from superficial or partial indicators that two jobs are alike must be emphasized. Both positions must be studied in their entirety to ascertain whether or not they are, in fact, the same. If they are the same, then, of course, the classification should be the same.

This is not to say, of course, that an employee occupying a trainee Librarian position may not perform Library Technician type duties. In this case, the duties are for training purposes and may well be of a lower grade value than that to which the position is classified. However, it must be recognized that this a trainee situation and it is not anticipated that it will continue. The target position is that of a professional and as training is completed, the employee will be assigned more complex duties. On the other hand, if the position continues to operate at the lower level and no additional or more complex assignments are made or anticipated, then the position should be reclassified based on the duties required of the position. The qualifications of the incumbent in this case would not be grade or series controlling.

References:

Civil Service Commission Position Classification Standards:

- Librarian Series, GS-1410, February 1966
- Library Technician Series, GS-1411, June 1966
- Technical Information Services Series, GS-1412, February 1966
- Guide for the Classification of Positions Providing Professional-Level Library and Information Services, February 1966

AN EXPERIMENT IN COSTING THE FUNCTIONS OF THE PUBLIC SERVICES DIVISION OF THE AIR FORCE ACADEMY LIBRARY

by

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ABSTRACT: During the last decade, the systems approach and cost benefit analysis have been applied with considerable success to Technical Services operations in academic libraries, in order to identify functions and output and to evaluate the system which produces them. This methodology developed in answer to a need: a requirement to process two and three times the number of monographs and serials with no equivalent increase in the number of staff. Today, the need exists for managers also to cost Public Services operations but a consistent methodology has not been developed; indeed, many say it cannot be done. The chief argument usually presented is that while it is possible to cost products, public personnel deal in services, which either cannot be measured quantitatively at all, or only in terms of user satisfaction. This study suggests that the same methodology often used to investigate Technical Services can be adapted to examine Public Services operations, that these functions also can be itemized and cost guidelines established.

Administrative officials in libraries are not usually provided with and frequently cannot get reliable figures on staffing requirements and other general costing data when they prepare budgetary justifications or projections for their Public Services units. On the other hand, the requirements for personnel, supplies, equipment, and space needed to run an efficient Technical Services operation are ordinarily immediately at hand or can be estimated within a reasonably short period of time by the fairly simple expedient of counting products, i.e., dollars spent, titles purchased, catalog cards generated, and other tangible products of "X" number of personnel, with a ratio of, say, three clericals to one professional, using so much equipment of a certain type, and so on. In addition to the relative ease of gathering such unique data within an individual library, little difficulty exists in finding comparable studies or figures of similar programs elsewhere. Thus, Technical Services operations usually can be compared, alternative means of achieving common goals can be explored, and results of experiments, both good and bad, explained. Moreover, standardized performances of various tasks in Technical Services have been suggested.

But, relatively hard data of this type is almost never available from Public Services divisions. This presents a dilemma for library planners since administrators typically equate the library's mission with the level of service provided by the Public Services units.

What functions are, in fact, performed by public personnel and how can these functions be measured, evaluated, and assigned most economically for both present and future needs? Few answers exist.

One way to tackle this problem would be to review a methodology which seems to yield some valid and reliable data on Technical Services operations. The systems approach, as we all know, begins by defining objectives. And in Technical Services, the chief objective, basically, is to provide a finished product: a requested monograph, serial or non-print item which has been swiftly and accurately identified by a bibliographer; ordered, received, and paid for by Acquisitions; cataloged, classified, and assigned its unique place in the library inventory by the catalogers; and, with any luck, placed in the waiting hands of eager users by Circulation staff. The progress of the piece, the work flow through the system, can be documented both graphically and in narrative form. It is a logically sequential process. The attendant tasks of staff can be identified, described, and counted by several methods which can also provide cross-checks on the findings: asking staff to keep diaries; conducting occupational audits, other kinds of interviews, and surveys. Finally, when the data have been gathered, tabulated, and analyzed, the system can be evaluated in terms of how well it meets its objectives and how efficiently it is performing. Duplication and any work overlap can be more readily spotted and diagnosed; redesign can eliminate unnecessary loops. Perhaps most important, the systems approach can also point up conflicting objectives. For example, is it more important to assure an even work flow for the Technical Services staff throughout the year, or to target a fast processing time of, say, five weeks for every monograph ordered? This must be a management decision. It is 99% impossible to achieve both these objectives concurrently, given conventional staffing patterns. And if one division is working chiefly to achieve an even pace and uniformity, and another division bases its operations chiefly on speed of handling individual items, the conflicts which will ensue from the inherent departmental interdependencies guarantee discord and strife for the staff. Yet the underlying causes for such disharmony are rarely perceived.

When the question is posed, why have similar techniques not been more widely utilized to examine Public Services units, a number of answers is given. One of the distinctions most frequently cited, although its accuracy may be open to some question, is that a Public Services unit deals in services, not products, and adequate measures for services have (a) not been devised; (b) are impossible, except in terms of user satisfaction. Now no librarian is apt to quarrel with the concept of user satisfaction as a summum bonum. However, while it is a splendid overall objective, one may with some reason argue that it is not necessarily the only measure of performance, and, perhaps, not even a very good one. Erroneous, out-of-date, or incomplete information can be supplied by a librarian and joyfully received by an unknowledgeable patron. User surveys, intended to poll levels of satisfaction, almost universally demonstrate appalling user ignorance of the library resources - print, non-print, and people. Fortunately, however, when a survey drives this point home, librarians realize that the ignorance is not the fault of the user. Rather, it is an indication that we have fallen down on the job by not publicizing sufficiently what we have to offer.

But the criterion of satisfaction with existing services, while certainly necessary, is not sufficient and needs considerable bolstering from other sources, as well as frequent monitoring, to be a significant indicator of performance.

It seems more likely that the lack of clarity and definition in Public Services can be traced to a very simple cause. There was no need. Public Services personnel never faced the challenge of a work load suddenly augmented by a factor of two or three, with no provisions made for increase in staff, whereas almost all Technical Services divisions faced this immediate reality in the mid-60s, with the avalanche of resources provided by means of the increased buying power the federal government supplied. As we know, monies were for library materials only, not for staff. Processing departments had little choice but to scrutinize their operations, cut out the fat, and buckle down to cooperative and meticulously detailed, substantially more productive procedures. Furthermore, performance standards slowly evolved; workers were expected to measure up at least to minimum standards. It was a whole new world for Technical Services librarians and in many respects a frightening one, but the coping strategies were not far behind and soon opened vigorous and interesting new areas of investigation.

However, the time for such divisional isolation now has passed. Public Service units today face new financial constraints, along with the rest of the library. Budgets have been cut, thus, economies must be made. There now is a need, a need for an approach which will supply answers to many questions. For example, what, if any, public "services" are expendable; what is a just charge for a service which can no longer be sustained in unlimited quantity without financial reinforcement; and, can the services be ranked and costed in quantitative terms?

There seems little factual basis for the assumption that operations of a library Public Services unit are so different in kind that they elude or transcend the systems approach. Certainly there is at least one unique and major area of responsibility of this unit: public information desks must be manned and patrons must be served. First, by all personnel, on or off a duty desk. This charge can "interfere" with a Public Service staff member's routine duties, in that it takes precedence; his work is subject to frequent interruptions and his production, in the sense of countable book orders, pamphlets processed, pictures clipped, may go down. But this does not mean that a carefully quantitative analysis of the department's structure and functions cannot be conducted. Departmental objectives will differ, as will priorities. But it is here suggested that all else can be subjected to the same kind of an investigation as can Technical Services. Obviously, it is impossible (at least to the writers' knowledge) to measure quantitatively the perceptiveness and effectiveness of the librarian in client counseling and retrieving needed information, or in educating users in the library's means of access to information. But, we can, through quantitative means, measure such commonplace facts as how many inquiries from a certain type of patron Public Services librarians answered in a week, how much the librarians' time it took, and the type and level of question asked.[1]

The major purpose of this paper is to describe some aspects of an in-house survey which we have conducted at the Air Force Academy Library during the past year and a half. Its initial stimulus was the recognition that larger budgetary constraints would be the pattern of the future and that "more would have to be done with less," a familiar refrain to the library community. To accommodate a more austere environment with minimum reduction in service, we would need reliable data on which to base important decisions. Our survey was intended to identify current operations and analyze them, with the goals of providing increased services, greater efficiency, and reduced costs.

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[1] It was outside the scope of this study to attempt any evaluation of the quality of counseling and interviewing service provided by the Public Services staff. A good deal of potentially useful and highly interesting speculation is emerging in this field, which should help to dispel the mystery surrounding the "reference interview." Theory and practice borrowed and modified from other disciplines, such as counseling and guidance, educational psychology, communication theory, lend credence to the belief that an effective reference librarian can probably describe, learn, and teach effective interviewing skills, thus undercutting, at least theoretically, the reliance on intuition and presumably inborn, untransmittable qualities which ultimately are to result in a race of super librarians, such as the one described by Margaret Hutchins many years ago. (Hutchins, Margaret. Introduction to reference work. Chicago, A. L. A., 1944.) In a related area, search strategy research suggests the possibility of structuring patterns of best sequences ("best" in the sense of most parsimonious) in several subject areas and, better yet, further suggests the methods and means by which such structuring can be effected. Again, however, this aspect of service was for present purposes considered peripheral, not essential to the study conducted. Also excluded for present purposes are considerations of costing supplies, equipment, and overhead. Air Force will supply the formula when we need it.

Phase I of the project was a study of the Administration and Technical Services Divisions, conducted simultaneously; *Phase II*, the subject of this paper, focuses on Public Services.

One of our chief purposes here is to describe a technique which evolved from this survey and which seems to us to afford a useful and quick approach to the costing of certain hard-to-define areas of library services – what it takes in dollars and cents for librarians and support staff to perform certain specified functions.

The formula to be described is a simple one, based on time, wages per minute, and frequency of performance and it can be used most effectively in combination with other, more standardized, measurements, where they exist. Its general appeal as a management tool is that it affords a quick guide to costing services and functions which in themselves generate no countable product.

Our research design was eclectic. We are chiefly indebted to Lawrence E. Leonard, Joan M. Maier, and Richard M. Dougherty for their work *Centralized Book Processing; A Feasibility Study Based on Colorado Academic Libraries.*[2] We thought this study might be especially valuable because it was conducted in Colorado and we could compare and contrast our operations with those of other libraries in the State. To this end, we have just concluded in May and June of this year, a survey of the Public Services units of these same Colorado libraries[3] and expect to present some of the findings at this meeting. Since we are now being asked to compare financially and justify our operations with those in the local community, rather than with those in the Federal community at large, this study has proven particularly timely and useful.

We are also indebted to consultants from the faculty at the Air Force Academy, in computer sciences, management, and industrial psychology who gave generously of their time and advice.

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[2] Metuchen, N. J.: Scarecrow Press, 1969.

[3] Adams State College of Colorado, Colorado School of Mines, Colorado State University, Fort Lewis College, Metropolitan State College, Southern Colorado State College, University of Colorado, University of Northern Colorado, Western State College.

Following is a description of the step-by-step process in conducting this part of the management survey:

Step 1: After extensive consultation with the staff members involved, and obtaining from them statements of professional objectives, both personal and institutional, we compiled task lists for each of the Public Services divisions. Only Reference will be considered here; however, "Reference" includes Interlibrary Loan, Reserve, and Government Documents. Excluded are Circulation and Special Collections. The working task list for Reference is included in Appendix I.

Step 2: Next, all personnel conducted individual diary studies for a 10-day period. The forms used were taken directly from the Leonard work, as indicated in Figure 1. The diary data were then tabulated, coded, and key-punched for computer analysis with financial tables, as shown in Figures 2 and 3.

Shortcomings of this sampling procedure were soon apparent, however. Many tasks, for one reason or another, were not performed during the 10-day period. And some of these tasks were very important ones. So to supplement the sample and to give us a more accurate profile of staff, we borrowed both the technique and format of "occupational audits" from the Academy's team of management engineers.

Step 3: Conducting occupational audits involved reviewing the entire Reference Task List with each individual and obtaining his statement of all the tasks he performed in a year's time, together with estimated frequency and time per occurrence. See Figure 4.

With the diary data, the audit data, interviews and flow charts, plus any additions or revisions which seemed necessary, we can describe with reasonable accuracy most of our major operations and requirements.

The first computer programs provided us with job profiles of all personnel. Figure 5 is the profile of the librarian who handles outgoing ILL requests who also serves as the subject librarian for American history and anthropology. Note the last column to the right, labeled COST PER OCCURRENCE. This figure consists of time, times wage per minute, divided by frequency, and provides a simple but effective figure for estimating costs - if caution is exercised. The cost of each occurrence is a function of the frequency and therefore a representative sample must exist for there to be any degree of reliability.

Figure 5 is also an example of diary data. We can contrast it with the audit data, seen in Figure 6, and have a comparison of how a librarian actually spent her time for 10 days, and how she thinks she spends it, on an annual average. We also have a comparative printout as seen in Figure 7. This is a composite profile, of all diary and audit data, with the audit (column 2) supplementing actual observed sample. Our consultants in Computer Sciences, incidentally, view very skeptically the audits, or personal "guesstimates" of how individuals spent their time. However, we continue to believe the information will be helpful, if sensibly interpreted. None of the data will be accepted as gospel, although this fear has been a source of anxiety to members of our staff in spite of continuing efforts on our part to dispel it.

As expected, there were several different kinds of errors, as well as inadvertent omissions. These would be worth a paper in themselves - the identification of problems and their sometime solution.

In addition to the individual job profiles, the division as a division was also analyzed For example, we need to know which tasks are performed most frequently and which individuals perform them. See Figure 8 for excerpts from the reference task list ranked by time and note the differences in diary sample and audit estimates for the 12 most time-consuming tasks. From this data, we selected the overlap sample, 5 tasks which occurred on both lists, as shown in the table in Figure 9.

"Who is doing what" certainly requires special attention. Perhaps the person who is paid 5 cents a minute can do the same work as an incumbent who is paid 14 cents. Perhaps not. But this is the kind of question we will put to our Division Chiefs, who will be expected to comment on these findings as well as the alternative procedures suggested by the research team.

Functions of reference staff obviously do not necessarily provide "information" in the technical sense, that is, data which is relevant and meaningful to a user. However, staff ability to supply interlibrary loan requests should be one good indicator of providing information. The task list provided 5 categories for processing requests just to borrow library materials.

From the diary studies, we see the estimated time to process requests to borrow totaled 5,469 minutes for 10 days; total cost, $512. Based on a quick estimate of $255.9 per week, the annual projection would be $13,312 for a year.

However, a user opinion survey shows that 49 percent of our clientele is not aware of interlibrary loan. Since ILL is an important source of information, this service must be publicized. To what extent this will stimulate requests and costs and tradeoffs we can only guess, but a good working estimate might be 50 percent.

Another example: our data demonstrates that the most time-consuming and expensive function of reference is servicing the information desk. Figure 10 provides a wages profile of the personnel assigned to the desk. It is possible that an appreciable savings could be realized, and service expanded, by removing higher paid personnel to backup or referral positions of greater specialization.

Finally, several functions are performed by all divisions – Technical Services, Administration, and Public Services. For example, personnel in all divisions engage in academic activities, professional reading, interviews, attending meetings, and training personnel.

Interviews (defined as unscheduled meetings of 5 minutes or longer) take up the most time, overall. As shown in Figure 11, Administration leads the way, with Reference second. The overall costs of interviews show a 10-day total of $1,027, or an average of $103 per day, with an annual projection of approximately $26,000. One suggested solution, finally accomplished in first draft form by Reference personnel after a year's effort on their part will be to develop procedural manuals. This should eventually reduce the need to interrupt and question individuals so frequently. Another suggestion may be to appoint a "gatekeeper" for divisions who will screen incoming questions. It is increasingly obvious that impromptu conversations, while often necessary, are exceedingly costly.

We feel that this costing technique is helpful because, in addition to close definitions of performances, it provides a dollar estimate on the way that people spend their time which did not previously exist. Like most managers engaged in structuring a Planning, Programming, Budgeting System and its preliminaries, we are constantly trying to identify and translate our objectives and requirements with ever greater precision. Costs of tradeoffs become increasingly important as more commercial services become available and both the difficulty and importance of costing those areas of professional duties, such as readers' services, counseling employees and planning, have already been discussed. We think this approach represents a beginning.

APPENDIX I

REFERENCE TASK LIST

```
N.

 01/19/73         TIME IS  9:30
 CSIZEIN =  10    BLOCKSIZEIN =  10
PRCDTC ***        UNITS=WORDS


          REFERENCE TASK LIST NOV. 1972
     R1    ABEL SLIPS—SORTING
     R2    ACADEMIC ACTIVITIES-SPECIFY
     R3    BACKUP(SEE ALSO HOSPITAL LIBRARY REPLACEMENT)
     R4    BIBLIOGRAPHIES-PREPARATION
     R5    BIBLIOGRAPHIES-PROOFREADING
     R6    BIBLIOGRAPHIES-SCREENING
     R7    BIBLIOGRAPHIES-OTHER-SPECIFY
     R9    BUDGET MONITORING-SORTING SLIPS FROM ACQUISITIONS
     R10   BUDGET MONITORING-MAKING ESTIMATES
     R11   CIRCULATION DESK ASSISTANCE
     R12   CLASSIFIED MATERIALS-SIGNING FOR, ETC.
     R13   CLASSIFIED MATERIALS-ASSISTING USERS
     R14   CLASSIFIED MATERIAL-INVENTORY
     R15   CLASSIFIED MATERIALS-DESTRUCTION
     R16   COLLECTION DEVELOPMENT-DETERMINING OR WRITING POLICIES
     R17   COLLECTION DEVELOPMENT-REVIEW OF DF ORDERS (FACULTY ORDERS)
     R18   COLLECTION DEVELOPMENT-REVIEW OF SELECTION MEDIA
     R19   COLLECTION DEVELOPMENT-REVIEW OF GIFT ITEMS
     R20   COLLECTION DEVELOPMENT-REPLACEMENT COPIES ORDERED
     R21   COLLECTION DEVELOPMENT-OTHER-SPECIFY
     R22   COLLEGE CATALOG PROCESSING
     R23   CONVENTIONS, ATTENDING
     R24   CORRESPONDENCE-DRAFTING
     R25   CORRESPONDENCE-TYPING
                                             OR
     R25.1 CORRESPONDENCE-TAKING ACTION AND/ REFERRING
     R26   CURRENT ISSUES ROOM MAINTENANCE
           PURCHASE REQUESTS SEE COLLECTION DEVELOPMENT
     R27   DEPARTMENTAL LIBRARIES-PLAN FOR COLLECTION
     R28   DEPARTMENTAL LIBRARIES-MAINTENANCE OF COLLECTION
           DESK SCHEDULES SEE SCHEDULES
     R29   DOCUMENTS, U.N.-REVIEW FOR RETENTION
     R30   DOCUMENTS, U. N.-PROCESS
     R31   DOCUMENTS, U.N.-SHELVE
     R32   DOCUMENTS, U. N.-OTHER-SPECIFY          (GOVT. DOCS SERVICE DESK
     R33   DOCUMENTS, U. S.-INFORMATION SERVICES    ON 6TH FLOOR ONLY     )
     R34   DOCUMENTS, U. S.-PROCESS DEPOSITORY SHIPMENTS
     R35   DOCUMENTS, U. S.-PROCESS NON-DEPOSITORY ITEMS
     R36   DOCUMENTS, U. S.-SELECT FROM MONTHLY CAT. ETC.
     R37   DOCUMENTS, U. S.-SCREEN ALL DOCUMENTS
     R38   DOCUMENTS, U. S.-SHELF-LIST
     R39   DOCUMENTS, U. S.-OTHER-SPECIFY
     R40   INDEXES—UPDATING
     R41   EXHIBITS
     R42   FIFTH FLOOR USE ([illegible])
     R43   FILE MAINTENANCE-ASSIGN SUBJECT HEADINGS
     R44   FILE MAINTENANCE-PREPARE AND FILE
     R45   FILE MAINTENANCE-OTHER-SPECIFY
           GIFTS SEE COLLECTION DEVELOPMENT
           GOVERNMENT DOCUMENTS SEE DOCUMENTS, U. N. AND DOCUMENTS, U. S.
     R46   HOSPITAL LIBRARY DUTY
     R47   INFORMATION AND CATALOG ASSISTANCE DESK DUTY-SIMPLE QUESTIONS
     R48   INFORMATION AND CATALOG ASSISTANCE DESK DUTY-SEARCH QUESTIONS
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R49    INFORMATION SERVICES FOR USERS-SIMPLE QUESTIONS
R50    INFORMATION SERVICES FOR USERS-SEARCH QUESTIONS
R51    INTERLIBRARY LOAN: REQUESTS FOR LOANS-OPEN REQUESTS. GET CALL NOS.
R52    INTERLIBRARY LOAN: REQUESTS FOR LOANS-PULL MATERIALS
R53    INTERLIBRARY LOAN: REQUESTS FOR LOANS-PREPARE FOR MAILING
R54    INTERLIBRARY LOAN: REQUESTS FOR LOANS-ALL RELATED FILING OF FORMS
R55    INTERLIBRARY LOAN: REQUESTS FOR LOANS-OTHER-SPECIFY
R56    INTERLIBRARY LOAN: REQUESTS TO BORROW-TAKE REQUEST
R57    INTERLIBRARY LOAN: REQUESTS TO BORROW-VERIFY
R58    INTERLIBRARY LOAN: REQUESTS TO BORROW-TYPE FORMS
R59    INTERLIBRARY LOAN: REQUESTS TO BORROW-FILE FORMS
R60    INTERLIBRARY LOAN: REQUESTS TO BORROW-OTHER-SPECIFY
R61    INTERVIEWS (UNSCHEDULED MEETINGS)
       INSTRUCTION OF LIBRARY PERSONNEL SEE PERSONNEL ADMINISTRATION
R62    INVENTORY-ANNUAL
R63    INVENTORY-OTHER-SPECIFY
       JOB DESCRIPTIONS SEE PERSONNEL ADMINISTRATION
R64    KR (STAFF ROOM)
       LARGE REFERENCE FILES SEE FILE MAINTENANCE
R65    LEAVE-ADMIN
R66    LEAVE-ANNUAL
R67    LEAVE-SICK
       LETTERS SEE CORRESPONDENCE, INFORMATION SERVICES
R68    MAIL DISTRIBUTION
R69    MAP COLLECTION
R70    MEETINGS (SCHEDULED MEETINGS)
R71    MICROFORMS
       MINOLTA SEE PHOTOCOPIES
R72    MUSIC COLLECTION
R73    MUSIC EQUIPMENT
R74    NEW BOOKS, REVIEWING
R75    NEW BOOK LIST-COMPILING AND REVISING
       OBITUARIES-SEE INFORMATION SERVICES
R76    OBSERVATION OF ACTIVITIES IN LIBRARY
R77    OPEN OR CLOSE LIBRARY
R78    PERSONAL BUSINESS-ACTIVITIES NOT WORK-RELATED
R79    PERSONNEL ADMINISTRATION-INSTRUCTION OF LIBRARY STAFF
R80    PERSONNEL ADMINSTRATION-PERSONAL INTERVIEWS
R81    PERSONNEL ADMINISTRATION-WRITTEN FORM PREPARATION
R82    PERSONNEL ADMINISTRATION-OTHER-SPECIFY
R83    PHOTOCOPIER-PERSONAL OPERATION FOR LIBRARY PURPOSES
R84    PHOTOCOPIER-REQUESTS FOR CHANGE
R85    PLANNING FOR FUTURE-SPECIFY
R86    PROFESSIONAL READING(FIRST OBJECTIVE IS FOR PERSONAL DEVELOPMENT)
       QUESTIONS ASKED SEE INFORMATION SERVICES TO USERS
R87    READ SHELVES
R88    REFERENCE BOOKS, NEW, REVIEWING.
R89    REFERENCE SERVICE DESK-SIMPLE QUESTIONS
       REPLACEMENTS SEE COLLECTION DEVELOPMENT
R90    REFERENCE SERVICE DESK-SEARCH QUESTION
R91    REPORT LITERATURE-QUESTIONS ANSWERED
R92    REPORT LITERATURE-SELECTING
R93    REPORT LITERATURE-BIBLIOGRAPHICAL CHECKING
R94    REPORT LITERATURE OTHER-SPECIFY
R95    RESERVE-PROCESS LISTS
R96    RESERVE-PULL BOOKS
R97    RESERVE-PROCESS BOOKS
R98    RESERVE-REMOVE BOOKS
R99    RESERVE-PHOTOCOPY
R100   RESERVE-PROCESS PROBLEM SETS
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R101 RESERVE OTHER - SPECIFY
R102 SCHEDULES
SEARCH MISSING ITEMS SEE INFORMATION SERVICES
SELECTION SEE COLLECTION DEVELOPMENT
R103 SERVICE PUBLICATIONS, MAINTENANCE
R104 SHELVING BOOKS
SMALL REFERENCE FILES SEE FILE MAINTENANCE
R105 STATISTICS PREPARATION-MONTHLY REPORT
R106 STATISTICS PREPARATION-OTHER-SPECIFY
R107 SUGGESTION BOX MAINTENANCE-REVIEW QUESTIONS
R108 SUGGESTION BOX MAINTENANCE-TYPE RESPONSES
TECHNICAL REPORTS SEE REPORT LITERATURE
R109 TELECON
R110 TIME AND ATTENDANCE CARDS
R111 TIME SPENT KEEPING THIS DIARY
R112 TO'S AND NIRT'S-MAINTAIN RECORDS
R113 TO'S AND NIRT'S-PROCESS
R114 TO'S AND NIRT'S-SHELVE
R115 TO'S AND NIRT'S-OTHER-SPECIFY
(A.F. Technical Orders and Numerical [illegible]...)
R116 TOURS-FOR ACADEMICS
R117 TOURS-OTHER-SPECIFY
R118 TYPING
R119 WANT LISTS
R120 WEEDING COLLECTION
R121 OTHER GENERAL ACTIVITIES-WORK RELATED

R122 INSTRUCTION IN LIBRARY USE PROGRAMS
R123 CONTINUING EDUCATION OR STAFF DEVELOPMENT
R124 SHELF LIST MAINTENANCE (FILING, NOTATION,ETC.)
R125 MAINTENANCE OF CARD CATALOGS OTHER THAN S.L.
R126 AV MATERIALS, SERVICING A COLLECTION
R127 PUBLIC RELATIONS WORK
R128 BINDERY PREPARATION, REFERENCE COLLECTION ONLY
R129 BINDERY PREPARATION, GENERAL STACKS

FIGURE 1

DIARY FORMS

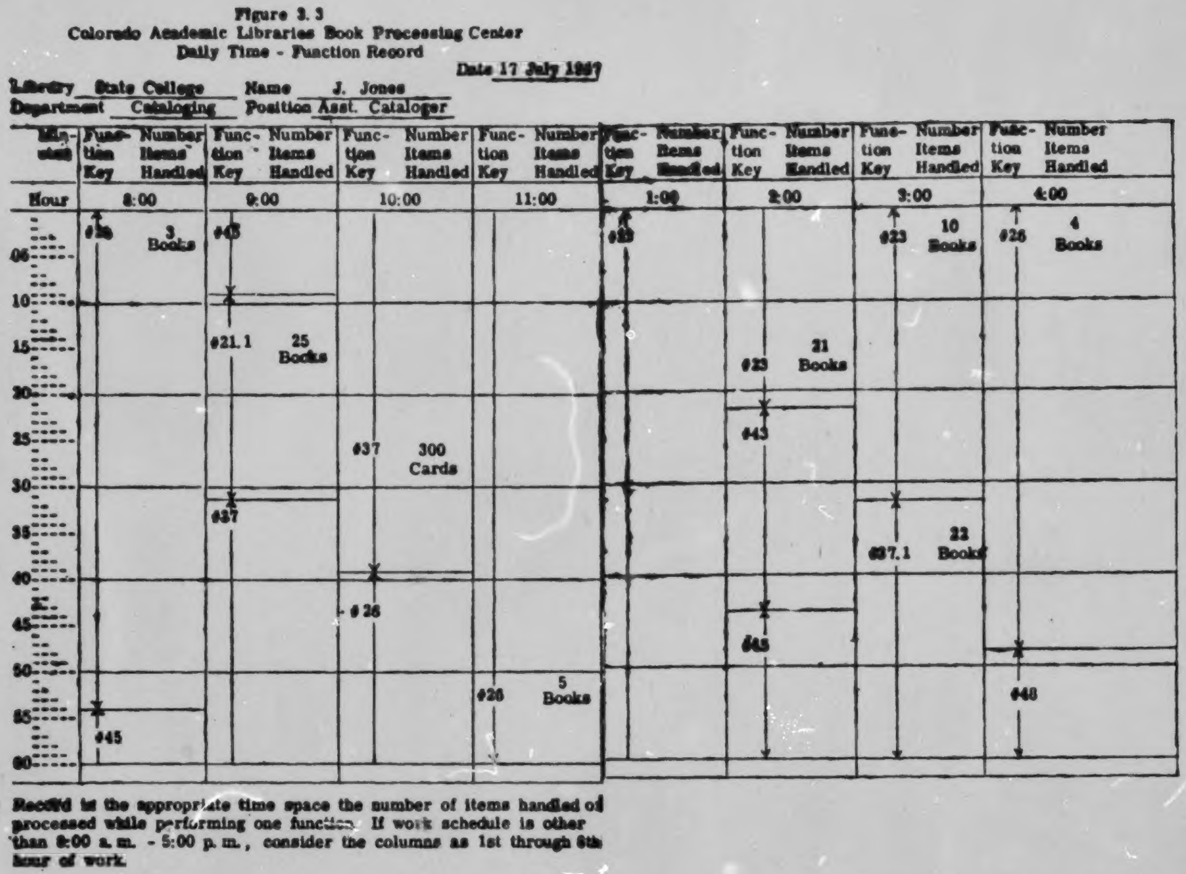

Figure 3.3
Colorado Academic Libraries Book Processing Center
Daily Time - Function Record

Date 17 July 1967

Library State College **Name** J. Jones
Department Cataloging **Position** Asst. Cataloger

Hour	Function Key	Number Items Handled
8:00	[illegible] #45	3 Books
9:00	#43 #21.1 #37	25 Books
10:00	#37 #28	300 Cards
11:00	#26	5 Books
1:00	[illegible]	
2:00	#23 #43 #45	21 Books
3:00	#23 #37.1	10 Books 22 Books
4:00	#26 #48	4 Books

Minutes: 05, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60

Record in the appropriate time space the number of items handled or processed while performing one function. If work schedule is other than 8:00 a.m. - 5:00 p.m., consider the columns as 1st through 8th hour of work.

Leonard, Lawrence E. Centralized book processing; a feasibility study based on Colorado Academic Libraries, by Lawrence E. Leonard, Joan M. Maier and Richard M. Dougherty. Metuchen, N. J., Scarecrow, c. 1969 by the authors, p. 54-55.

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Figure 2

WAGE FORMULA TABLES FOR THE COMPUTER PROGRAM

1 Dept - Alpha

A - Acquisitions
B - Administration
C - Cataloging
D - Serials
R - Reference

2-4 Task No.

5-6

Name Codes	Grade/Step
01	5/3
02	13/3
03	05/2
04	3/3
05	3/1, etc.

7-8

Categories		Grade	Step	$/Mo. Wage
C	01	3	1	485.67
	02		3	518.00
	03		4	534.16
	04		7	582.66
	05	4	2	563.50, etc.

9-11 Frequency

12-15 Total Time - In Minutes

Wage tables were constructed for the program for all personnel. This is a sample of the data included in those tables.

Figure 3

AIR FORCE MANAGEMENT ENGINEERING TEAM WAGE FORMULA FOR AIR FORCE ACADEMY PERSONNEL

Personnel Time Formula:

1. Military - 142 hours per month
2. Civilian - 149 hours per month
    - a. Military
        - (1) $\frac{\text{Wages/mo}}{8,520} = \$/\text{min}$
        - (2) $\frac{\text{Wages/mo}}{142} = \$/\text{hr}$
    - b. Civilian
        - (1) $\frac{\text{Wages/yr}}{107,280} = \$/\text{min}$
        - (2) $\frac{\text{Wages/yr}}{1,788} = \$/\text{hr}$

This formula takes into account all leave (administrative, annual, sick) and regular coffee breaks, for both military and civilian personnel.

FIGURE 4

OPERATIONAL AUDIT DATA	COMMAND, LOCATION, ORGANIZATION LEVEL Employee No. 12. Sheet 1 of 2. Cataloging Division	FUNCTION, SUBFUNCTION/CODE, WORK CENTER/CODE	COMPLETION DATE PAGE

ACTIVITY TITLE A	NO. PERS RQRD B	ACTIVITY FREQUENCY C	FREQUENCY: CONVERSION FACTOR D	FREQUENCY: PER MONTH (C x D = E) E	ALLOWED MANHOURS: PER ACCOMPLISHMENT F	ALLOWED MANHOURS: PER MONTH (E x F = G) G	TOTAL H
C1 ACADEMIC ACTIVITIES (Meetings)		3/yr.			8 hrs. ea.		
(C6 Prepare AUTHORITY CARDS							
C34 Prepare CROSS REFERENCE CARDS		1/wk.			2 hrs.		
C16 CARD SETS. Revise typing.		1/mo.(100 items)			5 hrs.		
C17 CARD SETS. Sorting & Alphabetizing		1/mo.(100 items)			15 min.		
C21 Revising Filing - Public Cc		2/mo.			2 hrs. ea.		
C22 Revising Filing - Shelf List		4/yr.			4 hrs. ea.		
C23 Revising Filing - Subject Authority List		2/mo.			15 min. ea.		
(C24 CATALOGING. With LC Copy-Descriptive							
C25 CATALOGING and Subject		1/wk.(50 items)			1 day		
(C26 CATALOGING Original. Descriptive and							
C27 CATALOGING Subject		1/mo.(15 items)			3 days		
C28 CLASSIFICATION. from LC Copy		1/wk. (50 items)			2 days		
C29 CLASSIFICATION. modified LC - Saunders		1/mo. (50 items)			5 days		
C30 CLASSIFICATION. original (no copy)		1/mo. (15 items)			2 days		
C31 COLLECTION DEVELOPMENT		1/mo.			1 day		
C33 Making CORRECTIONS. Instructions to typist		1/day			15 min.		
C37 EQUIPMENT. Requesting service...		1/mo.			10 min.		
C39 EQUIPMENT. Viewing displays...		1/yr.			4 hrs.		
C41 GENERAL ASSISTANCE TO OTHER PERSONNEL		daily			1 hr.		
C43 Cataloging of GOVERNMENT DOCUMENTS		1/wk.			10 min.		
C45 INTERVIEWS		daily			30 min.		
C47 MTST USE. Programming & Explanation		1/day			15 min.		
C49 MEETINGS		2/mo.			1-1/2 hrs.		
C50 Cataloging of MICROFORMS		1/mo.			1 hr.		
C57 Making PHOTOCOPIES on Minolta		1/mo.			5 min.		
C58 PLANNING (MTST Buying)		1/yr.			2 hrs.		
C59 PRE-CATALOGING ROUTINES		1/day			15 min.		
C59.1 POST-CATALOGING ROUTINES		1/day			15 min.		
C60 PROFESSIONAL READING		1/mo.			1 day		
C61 RECATALOGING AND RECLASSIFICATION		1/mo.			1 hr.		

AF FORM 1040 PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE.

FIGURE 5

```
          DIARY                           USAF ACADEMY LIBRARY JOB PROFILE FOR
                                                                                        TOTAL TIME  5442

  TIME     PERCENT     DEPT     TASK                                                                               COST PER
 (MIN.)    OF TTL      CODE     CODE                      TASK                            FREQ      WAGE/MIN    OCCURRENCE

  1205       22          R       089    REF SVS DESK - SIMPLE Q                          014.00       0.12          0.33
  0485       09          R       018    COLLECTION DEVELOPMENT - REVIEW SELECTION ME     008.00       0.12          7.27
  0450       08          R       023    CONVENTIONS - ATTEND                             002.00       0.12          7.00
  0440       08          R       057    ILL - REQUESTS TO BORROW - VERIFY                006.00       0.12          8.80
  0347       06          R       042    FIFTH FLOOR USE (PERS & INDEXES)                 014.00       0.12          2.97
  0300       06          R       121    OTHER GENERAL ACTIVITIES, WORK-RELATED           002.00       0.12          8.00
  0295       05          R       060    ILL - REQUESTS TO BORROW - OTHER - SPECIFY       010.00       0.12          3.54
  0222       04          R       086    PROF READING (FIRST OBJ: PERSONAL DEVELOP)       005.00       0.12          5.33
  0190       03          R       061    INTERVIEWS (UNSCHEDULED MEETINGS)                008.00       0.12          2.85
  0168       03          R       111    TIME SPENT KEEPING THIS DIARY                    010.00       0.12          2.02
  0155       03          R       059    ILL - REQUESTS TO BORROW - FILE FORMS            003.00       0.12          6.20
  0150       03          R       047    INFO AND CAT ASSIST DESK - SIMPLE Q              002.00       0.12          9.00
  0145       03          R       070    MEETINGS (SCHEDULED MEETINGS)                    002.00       0.12          8.70
  0140       03          R       074    NEW BOOKS - REVIEW                               002.00       0.12          8.40
  0130       02          R       008    ?????????????????????????????,???????????????    007.00       0.12          2.23
  0117       02          R       049    INFO SVS FOR USERS - SIMPLE .                    004.00       0.12          3.51
  0060       01          R       044    FILE MAINTENANCE - PREPARE AND FILE              002.00       0.12          3.60
  0060       01          R       001    REL SLIPS - SORT                                 001.00       0.12          7.20 ←
  0055       01          R       056    ILL - REQUESTS TO BORROW - TAKE REQUEST          005.00       0.12          1.32
  0050       00          R       003    BACKUP (SEE ALSO HOSP LIB REPLACEMENT)           007.00       0.12          3.00
  0040       00          R       052    ILL - REQUESTS FOR LOANS - PULL MATERIALS        001.00       0.12          4.80
  0030       00          R       053    ILL - REQUESTS FOR LOANS - PREPARE FOR MAIL      001.00       0.12          3.60
  0030       00          R       055     ILL - REQUESTS FOR LOANS - OTHER, SPECIFY       001.00       0.12          3.60
  0030       00          R       083    PHOTOCOPIER - OPERATION FOR LIB PURPOSES         001.00       0.12          3.60
  0030       00          R       106    STATISTICS PREP - OTHER - SPECIFY                001.00       0.12          3.60
  0025       00          R       078    PERSONAL BUSINESS, ACTIVITIES NOT WORK-RELAT     001.00       0.12          3.00
  0018       00          R       084    PHOTOCOPIER - REQUESTS FOR CHANGE                004.00       0.12          0.54
  0015       00          R       076    OBSERVATION OF ACTIVITIES IN LIB                 001.00       0.12          1.80
  0013       00          R       105    STATISTICS PREP - MONTHLY                        001.00       0.12          1.56 ←
  0012       00          R       091    REPORT LIT - QUESTIONS ANSWERED                  001.00       0.12          1.44
  0010       00          R       077    OPEN OR CLOSE LIBRARY                            002.00       0.12          0.60
  0010       00          R       251    CORRESPONDENCE ACT OR REFER                      001.00       0.12          1.20
  0010       00          R       019    COLLECTION DEVELOPMENT - REVIEW GIFTS            001.00       0.12          1.20
  0005       00          R       090    REF SVS DESK - SEARCH Q                          001.00       0.12          0.60
```

Diary data job profile of a reference librarian, arranged in rank order by total time in minutes (column 1) and percent of time (column 2).

FIGURE 6

AUDIT

USAF ACADEMY LIBRARY JOB PROFILE FOR

TOTAL TIME 23543

TIME (MIN.)	PERCEN OF TTL	DEPT CODE	TASK CODE	TASK	FREQ	WAGE/MIN	COST PER OCCURRENCE
4200	18	R	089	REF SVS DESK - SIMPLE Q	038.00	0.12	3.26
3600	15	R	061	INTERVIEWS (UNSCHEDULED MEETINGS)	240.00	0.12	1.80
2400	10	R	057	ILL - REQUESTS TO BORROW - VERIFY	040.00	0.12	7.20
2400	10	R	049	INFO SVS FOR USERS - SIMPLE Q	160.00	0.12	1.80
1800	08	R	042	FIFTH FLOOR USE (PERS & INDEXES)	120.00	0.12	1.80
1200	05	R	018	COLLECTION DEVELOPMENT - REVIEW SELECTION ME	020.00	0.12	7.20
1000	04	R	056	ILL - REQUESTS TO BORROW - TAKE REQUEST	100.00	0.12	1.20
0800	03	R	059	ILL - REQUESYS TO BORROW - FILE FORMS	040.00	0.12	2.40
0720	03	R	003	BACKUP (SEE ALSO HOSP LIB REPLACEMENT)	012.00	0.12	7.20
0560	02	R	004	BIBLIOGRAPHIES - PREPARE	000.58	0.12	5.86
0500	02	R	109	TELECON	100.00	0.12	0.60
0480	02	R	074	NEW BOOKS - REVIEW	008.00	0.12	7.20
0480	02	R	086	PROF READING (FIRST OBJ; PERSONAL DEVELOP)	008.00	0.12	7.20
0400	02	R	084	PHOTOCOPIER - REQUESTS FOR CHANGE	200.00	0.12	0.24
0400	02	R	078	PERSONAL BUSINESS, ACTIVITIES NOT WORK-RELAT	040.00	0.12	1.20
0360	02	R	070	MEETINGS (SCHEDULED MEETINGS)	003.00	0.12	4.40
0338	01	R	116	TOURS (FOR ACADEMICS)	002.25	0.12	8.03
0200	00	R	083	PHOTOCOPIER - OPERATION FOR LIB PURPOSES	040.00	0.12	0.60
0200	00	R	023	CONVENTIONS - ATTEND	000.42	0.12	7.14
0200	00	R	025	CORRESPONDENCE - TYPE	020.00	0.12	1.20
0180	00	R	011	CIRC DESK ASSISTANCE	006.00	0.12	3.60
0120	00	R	021	COLLECTION DEVELOPMENT - OTHER - SPECIFY	012.00	0.12	1.20
0120	00	R	088	REF BOOKS, NEW - REVIEW - SA NEW BOOKS-REVIE	008.00	0.12	1.80
0090	00	R	077	OPEN OR CLOSE LIBRARY	006.00	0.12	1.80
0090	00	R	076	OBSERVATION OF ACTIVITIES IN LIB	006.00	0.12	1.80
0080	00	R	085	PLAN FOR FUTURE - SPECIFY	000.08	0.12	0.00
0060	00	R	006	BIBLIOGRAPHIES - SCREEN	002.00	0.12	3.60
0060	00	R	117	TOURS (FOR ALL OTHERS)	001.00	0.12	7.20
0053	00	R	005	BIBLIOGRAPHIES - PROOF	000.58	0.12	0.97
0040	00	R	017	COLLECTION DEVELOPMENT - REVIEW OF ORDERS	004.00	0.12	1.20
0040	00	R	043	FILE MAINTENANCE - ASSIGN SUBJECT HEADS	002.00	0.12	2.40
0040	00	R	044	FILE MAINTENANCE - PREPARE AND FILL	004.00	0.12	1.20
0040	00	R	002	ACADEMIC ACTIVITIES	000.66	0.12	7.27
0030	00	R	019	COLLECTION DEVELOPMENT - REVIEW GIFTS	001.00	0.12	3.60
0030	00	R	079	PERSONNEL ADMIN - INSTR OF LIB STAFF	000.50	0.12	7.20
0030	00	R	118	TYPING	002.00	0.12	1.80
0030	00	R	102	SCHEDULES	000.50	0.12	7.20
0030	00	R	105	STATISTICS PREP - MONTHLY	001.00	0.12	3.60
0030	00	R	121	OTHER GENERAL ACTIVITIES, WORK-RELATED	001.00	0.12	3.60
0025	00	R	120	WEED COLLECTION	000.08	0.12	7.50
0020	00	R	087	READ SHELVES	002.00	0.12	1.20
0020	00	R	020	COLLECTION DEVELOPMENT - REPLACE ORDERS	000.17	0.12	4.12
0019	00	R	064	KP (STAFF ROOM)	000.42	0.12	5.43
0015	00	R	119	WANT LISTS, YEF FILES	001.00	0.12	1.80
0010	00	R	016	COLLECTION DEVELOPMENT - DETERMINE POLICIES	000.08	0.12	5.00
0003	00	R	010	BUDGET MONITORING - MAKE ESTIMATES	000.08	0.12	4.50

Audit data job profile of a reference librarian, arranged in rank order by total time in minutes (column 1) and percent of time (column 2).

FIGURE 7

COMBINED DIARY-AUDIT PROFILE OF A REFERENCE LIBRARIAN

USAF LIBRARY DIARY-AUDIT COMPARISON
BY EMPLOYEE

F091

TIME		DEPT	TASK CODE	TASK	FREQUENCY		WAGE PER MINUTE	COST/OCCUR	
DIARY	AUDIT				DIARY	AUDIT		DIARY	AUDIT
120		R	1	ABEL SLIPS - SORT	2.00		0.12	7.20	
	40	R	2	ACADEMIC ACTIVITIES		0.66	0.12		7.27
100	720	R	3	BACKUP (SEE ALSO HOSP LIB REPLACEMENT)	4.00	12.00	0.12	3.00	7.20
	560	R	4	BIBLIOGRAPHIES - PREPARE		0.58	0.12		115.86
	53	R	5	BIBLIOGRAPHIES - PROOF		0.58	0.12		10.97
	60	R	6	BIBLIOGRAPHIES - SCREEN		2.00	0.12		3.60
260		R	8	??	14.00		0.12	2.23	
	3	R	10	BUDGET MONITORING - MAKE ESTIMATES		0.08	0.12		4.50
	180	R	11	CIRC DESK ASSISTANCE		6.00	0.12		3.60
	10	R	16	COLLECTION DEVELOPMENT - DETERMINE POLICIES		0.08	0.12		15.00
	40	R	17	COLLECTION DEVELOPMENT - REVIEW OF ORDERS		4.00	0.12		1.20
970	1200	R	18	COLLECTION DEVELOPMENT - REVIEW SELECTION ME	16.00	20.00	0.12	7.28	7.20
20	30	R	19	COLLECTION DEVELOPMENT - REVIEW GIFTS	2.00	1.00	0.12	1.20	3.60
	20	R	20	COLLECTION DEVELOPMENT - REPLACE ORDERS		0.17	0.12		14.12
	120	R	21	COLLECTION DEVELOPMENT - OTHER - SPECIFY		12.00	0.12		1.20
900	200	R	23	CONVENTIONS - ATTEND	4.00	0.42	0.12	27.00	57.14
	200	R	25	CORRESPONDENCE - TYPE		20.00	0.12		1.20
694	1800	R	42	FIFTH FLOOR USE (PERS & INDEXES)	28.00	120.00	0.12	2.97	1.80
	40	R	43	FILE MAINTENANCE - ASSIGN SUBJECT HEADS		2.00	0.12		2.40
120	40	R	44	FILE MAINTENANCE - PREPARE AND FILE	4.00	4.00	0.12	3.60	1.20
300		R	47	INFO AND CAT ASSIST DESK - SIMPLE Q	4.00		0.12	9.00	
234	2400	R	49	INFO SVS FOR USERS - SIMPLE Q	8.00	160.00	0.12	3.51	1.80
80		R	52	ILL - REQUESTS FOR LOANS - PULL MATERIALS	2.00		0.12	4.80	
60		R	53	ILL - REQUESTS FOR LOANS - PREPARE FOR MAIL	2.00		0.12	3.60	
60		R	55	ILL - REQUESTS FOR LOANS - OTHER, SPECIFY	2.00		0.12	3.60	
110	1000	R	56	ILL - REQUESTS TO BORROW - TAKE REQUEST	10.00	100.00	0.12	1.32	1.20
880	2400	R	57	ILL - REQUESTS TO BORROW - VERIFY	12.00	40.00	0.12	8.80	7.20
310	800	R	59	ILL - REQUESTS TO BORROW - FILE FORMS	6.00	40.00	0.12	6.20	2.40
590		R	60	ILL - REQUESTS TO BORROW - OTHER - SPECIFY	20.00		0.12	3.54	
380	3600	R	61	INTERVIEWS (UNSCHEDULED MEETINGS)	16.00	240.00	0.12	2.85	1.80
	19	R	64	RR (STAFF ROOM)		0.42	0.12		5.43
290	360	R	70	MEETINGS (SCHEDULED MEETINGS)	4.00	3.00	0.12	8.70	14.40
280	480	R	74	NEW BOOKS - REVIEW	4.00	8.00	0.12	8.40	7.20
30	90	R	76	OBSERVATION OF ACTIVITIES IN LIB	2.00	6.00	0.12	1.80	1.80
20	90	R	77	OPEN OR CLOSE LIBRARY	4.00	6.00	0.12	0.60	1.80
50	400	R	78	PERSONAL BUSINESS, ACTIVITIES NOT WORK-RELAT	2.00	40.00	0.12	3.00	1.20
	30	R	79	PERSONNEL ADMIN - INSTR OF LIB STAFF		0.50	0.12		7.20
60	200	R	83	PHOTOCOPIER - OPERATION FOR LIB PURPOSES	2.00	40.00	0.12	3.60	0.60
36	400	R	84	PHOTOCOPIER - REQUESTS FOR CHANGE	8.00	200.00	0.12	0.54	0.24
	80	R	85	PLAN FOR FUTURE - SPECIFY		0.08	0.12		120.00
444	480	R	86	PROF READING (FIRST OBJ, PERSONAL DEVELOP)	10.00	8.00	0.12	5.33	7.20
	20	R	87	READ SHELVES		2.00	0.12		1.20
	120	R	88	REF BOOKS, NEW - REVIEW - SA NEW BOOKS-REVIE		8.00	0.12		1.80
2410	4200	R	89	REF SVS DESK - SIMPLE Q	28.00	38.00	0.12	10.33	13.26
10		R	90	REF SVS DESK - SEARCH Q	2.00		0.12	0.60	
24		R	91	REPORT LIT - QUESTIONS ANSWERED	2.00		0.12	1.44	
	30	R	102	SCHEDULES		0.50	0.12		7.20
26	30	R	105	STATISTICS PREP - MONTHLY	2.00	1.00	0.12	1.56	3.60
60		R	106	STATISTICS PREP - OTHER - SPECIFY	2.00		0.12	3.60	
	500	R	109	TELECON		100.00	0.12		0.60
336		R	111	TIME SPENT KEEPING THIS DIARY	20.00		0.12	2.02	
	338	R	116	TOURS (FOR ACADEMICS)		2.25	0.12		18.03
	60	R	117	TOURS (FOR ALL OTHERS)		1.00	0.12		7.20

Diary data in column 1 is supplemented by audit data in column 2, across the board. The audit data has been adjusted from a 20-day figure to a 10-day, to be compatible with diary data. Audit averages were originally computed on a monthly basis.

FIGURE 8

COMPARISON OF 12 MOST TIME-CONSUMING REFERENCE TASKS,
DIARY AND AUDIT

Diary Data (10-Day Sample)					Audit Data (20-Day Sample)				
Task No.	Task Title	Total Mins	Freq	Cost	Task No.	Task Title	Total Mins	Freq.	Cost
*89	Ref Desk Simple Q	9,064	190	$1,130	*89	Ref Desk Simple Q	33,250	282	$4,170
*18	Selection	2,699	101	$ 357	49	Info Simple Q	16,500	1,900	$2,003
*86	Prof Reading	2,034	93	$ 271	*61	Interviews	13,400	1,035	$1,773
23	Conventions	1,920	6	$ 263	*18	Selection	12,590	160	$1,653
*61	Interviews	1,458	137	$ 193	4	Make Change	5,160	2,460	$ 644
70	Meetings	1,455	22	$ 191	103	File Service Pubs	5,080	44	$ 344
*74	Review New Books	937	31	$ 124	58	ILL Typing (Borrow)	4,200	20	$ 252
121	General Activities	867	45	$ 104	*86	Prof Reading	3,780	115	$ 469
44	File Maintenance	857	33	$ 76	3	Backup	3,610	33	$ 458
251	Corresp in Baskets	783	64	$ 107	*74	Review New Books	3,540	70	$ 425
111	Time Spent on Diary	750	63	$ 89	42	Periods. and Indexes	3,248	236	$ 405
2	Academic Activities	722	11	$ 96	78	Personal Business	3,060	432	$ 362

*Overlap Tasks

This table shows tasks in rank order, with overlap items starred.

FIGURE 9

5 HIGHEST RANKING FUNCTIONS

Task	Rank		Time		Frequency		Cost	
	D	A	D	A	D	A	D	A
89	1	1	9064	16,625	190	141	$1130.00	$2085
18	2	4	2699	6,295	101	80	1357.00	846
86	3	8	2034	1,890	93	58	271.00	235
61	5	3	1458	6,700	137	518	193.00	886
74	8	10	937	1,770	31	35	124.05	212

89 - Reference Service Desk Duty
18 - Collection Development: Review Selection Media
86 - Professional Reading
61 - Interviews (Unscheduled Meetings)
74 - Review New Books

FIGURE 1C

COST OF MANNING REFERENCE DESK
FOR 10-DAY SAMPLE

TASK	NAME	EMP CODE	FREQ	WAGE/MIN	COST/OCCUR	TOTAL COST
89		8	22.00	0.14	9.04	198.80
89		3	38.00	0.12	5.43	206.28
89		12	8.00	0.07	3.72	29.75
89		4	14.00	0.11	10.33	144.60
89		7	33.00	0.11	3.95	130.35
89		6	13.00	0.15	21.69	282.00
89		2	21.00	0.06	1.41	29.70
89		10	39.00	0.15	2.10	81.75
89		11	2.00	0.14	13.30	26.60
			--------			--------
			190.00			1129.83

Column 5, wage per minute, shows different pay scales of personnel on Reference Desk. Names, in column 2, have been suppressed to maintain privacy. Employee codes, column 3, provide needed access.

FIGURE 11

INTERDEPARTMENTAL TASKS

INTERVIEWS

Admin

```
DEPT   TASK        NAME          CATEGORY   FREQ   TIME   PRODUCT   WAGE/MIN     C/M     TOTAL COST

                                    22       63     830                0.22       2.96      186.65
 B      56                          16       40     646                0.19       2.52      120.73
 B      56                           5       17     128                0.06       0.47        8.07
 B      56                          21       14     425                0.20       6.00       84.05
 B      56                          20        5     136                0.13       3.45       17.26
 B      56                          19        2      15                0.10       0.78        1.56
 B      56                          27        1       9                0.05       0.49        0.49
 B      56
                                 ********************************************************************
                                 TOTALS     150    2191                                     418.80
```

Reference

```
EPT    TIME     TASK     NAME        EMP CODE     FREQ        WAGE/MIN    COST/OCCUM    TOTAL COST

                                         2          3.00        0.08         0.54          1.62
 B      39       61                      6          6.00        0.12         2.28         13.65
 B      91       61                      0         21.00        0.15         1.15         24.15
 B     141       61                      7         21.00        0.11         1.03         21.67
 B     197       61                      8          8.00        0.12         2.85         22.80
 B     198       61                      1         13.00        0.??         0.97         12.60
 B     109       61                      8         18.00        0.19         1.18         21.28
 B     152       61                     11         47.00        0.14         1.59         74.90
 B     539       61                               -------                               --------
       -----                                      137.00                                192.67
       1458
```

Serials

```
EPT    TASK        NAME          CATEGORY   FREQ   TIME   PRODUCT   WAGE/MIN     C/M     TOTAL COST

                                    15       61     716                0.14       1.60       97.71
 D      62                           9       28     199                0.08       0.60       16.74
 D      62                          26       11     137                0.07       0.82        8.99
 D      62                           8        5      70                0.07       1.02        5.07
 D      62                          23        1      53                0.06       0.67        3.33
 D      62                          15        8      59                0.14       2.01        8.05
 D      62                          25        4      95                0.06       1.49        5.97
 D      62                          24        2      28                0.05       0.72        1.44
 D      62
                                 ********************************************************************
                                 TOTALS     120    1357                                     147.33
```

Cataloging

```
EPT    TASK        NAME          CATEGORY   FREQ   TIME   PRODUCT   WAGE/MIN     C/M     TOTAL COST

                                                                       0.09       0.83       23.26
                                    11       28     270                0.11       0.99       26.69
 C      45                          12       27     243                0.13       0.40       10.03
 C      45                          13       25      79                0.14       2.19       54.70
 C      45                          16       25     389                0.12       0.89       19.56
 C      45                          14       22     157                0.07       0.97        3.88
 C      45                           7        4      55                0.05       0.95        1.90
 C      45                           1        2      35                0.05       0.11        0.11
 C      45                           9        1       2                0.07       1.96        1.96
 C      45                           4        1      30
 C      45
 C      45
                                 ********************************************************************
                                 TOTALS     135    1260                                     142.08
```

Acquisitions

```
DEPT   TASK        NAME          CATEGORY   FREQ   TIME   PRODUCT   WAGE/MIN     C/M     TOTAL COST

 A      55                          17       27     730                0.16       4.36      117.75
 A      55                           2        3      65                0.06       1.26        3.77
 A      55                          10        2      20                0.08       0.84        1.67
 A      55                           3        2      50                0.06       1.49        2.99
                                 ********************************************************************
                                 TOTALS      34     865                                     126.18
```

Time and costs of unscheduled meetings, or interviews, in all 5 divisions: by individual, with divisional totals.

EVERYTHING YOU ALWAYS WANTED TO KNOW ABOUT LIBRARIANS, BUT WERE AFRAID TO ASK

(The role of professional librarians)

by

Rosalie A. Schnick, Librarian
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ABSTRACT

Librarians serving in Federal libraries have the great responsibility of performing the full range of professional duties which include administration, selection, acquisition, cataloging, reader assistance, nonprofessional tasks needing professional responsibility, reference work, literature searching, compiling bibliographies, and researching with information. The first six categories focus on the internal operation and organization of a library and the last four on the external relationship of the library with its clientele and parent organization. The extent to which each of these functions are performed depends upon the librarian's educational background, attitudes, and library situation.

* *

[The professional functions are those listed in the U. S. Civil Service Commission, Position-Classification Standards for GS-1410]

* *

Librarians and their art have been little understood and misrepresented too long. Although I'm here to talk to librarians about themselves, I am hoping my discussion of your duties and functions will help you explain yourselves to others.

Librarians have a great power--their part in the process of communication or information transfer in which they select, organize and evaluate information, and set priorities while answering the stated and subconscious questions of their clients. This power is not to be taken lightly. It must be based on a continuous seeking to integrate changes in the world of knowledge into library practice. The concept of maximized service can be a great benefit in supporting the research and information programs of the parent organization in which the library functions.

Most Federal libraries are staffed by one librarian who alone has the responsibility to perform the full range of professional duties. It is a very demanding and challenging situation because of the need for complete versatility, adaptability to change, and ability to set meaningful priorities. The extent to which these functions are performed and the importance of each is determined by the librarian's educational background, attitudes, and library situation.

There are ten basic functions a librarian performs. The first six categories focus basically on the internal operation and organization of a library and are administration, selection, acquisition, cataloging, reader assistance, and nonprofessional tasks needing professional responsibility. The last four groupings center on the external relationship of the library with its clientele and parent organization and include reference work, literature searching, compiling bibliographies, and researching with information. Each of these categories are involved in both professional and nonprofessional tasks which may or may not be routine.

In one-man libraries the overall administrative functions are the responsibility of the librarian. The librarian uses his understanding of library philosophy and methodology in developing and planning internal policies concerning such items as collections, budget, services, procedures, projects, and library facilities. External policies are needed to promote and interpret library service and programs especially to the supervisor and principle users of the library. Public relations programs are essential in obtaining for the library the proper recognition and stature in the whole organization.

Selection is an art requiring consistent detailed perusal of bibliographic aids. The librarian utilizes his background in classification systems, literature sources, and broad and specialized subject areas. Judgments must be made constantly to juggle the needs of the clients with the funds and space available. At all times, the librarian must be vigilant to the changing programs and desires of the parent organization. A current awareness program is but one example of the many projects which are possible with a good selection policy.

Acquisition follows selection as night follows day--citations are nice to look at, but they do not hand the information to the client. However, once a librarian has developed policies and routine procedures for obtaining materials, most acquisitions can become routine tasks performed by other personnel. The librarian still must control the budget and obtain problem materials.

In the area of cataloging, classification, and indexing, the librarian must have a highly specialized technical knowledge to meet the needs of the client. It is the process by which the librarian organizes and makes available to the users materials that have been carefully selected and obtained. Certain tasks, such as broad classification and basic descriptive cataloging, can become routine. However, most efforts in this area demand a high level of understanding of the subject matter.

Two areas--reader assistance and nonprofessional tasks needing professional responsibility--basically require the librarian to develop policies and procedures which can then be performed by other personnel. Diagrams of arrangements, manuals illustrating the classification system, and visual displays can aid the reader. Circulation procedures, processing of materials, and maintenance of items and shelves are also routine tasks which can ususally be delegated to others.

The following categories, I feel, are the bread and butter of our existence in highly specialized subject organizations. These activities involve the whole spectrum of utilizing literature--reference work, literature searches, bibliography compilations, and researching with information. This is where a knowledge of a subject area or ability in foreign language is desirable. This is also where a librarian can really sell the library to management.

At the beginning of this spectrum is reference work which requires a broad knowledge of information sources and a familiarity with reference skills. The kind of assistance given depends upon the needs and makeup of the clientele and policies and resources of the library. Answering reference questions and giving some research assistance from the basic up to, but not including, detailed questions are the most important duties in this category. The yielding of pertinent answers will help the client, and will establish the library as a quick, reliable source of information. Instruction in the use and kinds of reference resources available is also of value to the client and time saving to the librarian.

Literature searching is a systemic, comprehensive, and exhaustive pursuit of information on a specific subject which can either be retrospective or current in nature. The search may originate from an individual user's request or from the informational needs of the parent organization. Success depends upon the librarian's basic knowledge of literature sources, his subject speciality, and/or foreign language background. The tasks involved in this exercise include perusing abstracting and indexing services, and reading with understanding references and other source materials for pertinent information.

Compiling bibliographies is one possible final step in the process of literature searching. The bibliographies may either be lists of citations, or an annotated list. A bibliography of either type can advertise the library by showing what the librarian is capable of doing, and what resources are available.

Researching with information is a possible final step of literature searching. The purpose of this task, however, is to save research effort by determining from the literature what has been done and what needs to be done. Answers to research questions can be gained by gathering, analyzing, and interrelating information from many sources. The requirements are the same as those for compiling bibliographies. I have been allowed to perform researches with information as part of our Laboratory's program to register chemicals used in the fisheries field.

The extent to which compilations of bibliographies and researching with information are conducted depends upon the educational background of the librarian and the library situation. The librarian must be competent in the particular subject field to accomplish these tasks; the librarian must also be willing. The library situation, which involves the concurrence of the supervisor, adequate help, and size of the library, contribute to an atmosphere conducive to performing these duties.

Thus, the role of a librarian in the Federal government is to apply his knowledge and understanding of each duty and function to the overall purposes of the library. This results in the literature and information of the world being available to each client regardless of his speciality. By his desire to learn, serve, and grow professionally, the librarian takes on a challenge whether it be new developments in information retrieval, equipment, or literature explosion, or greater demands for searching and researching. In so doing, the librarian can cause the library to become an integrated, indispensable part of the organization it serves.

AN ADMINISTRATOR'S VIEW OF THE SPECIAL LIBRARY

Thomas G. Scott
Director
Wildlife Research Center
Bureau of Sport Fisheries and Wildlife
Denver, Colorado

I direct a medium-sized research center. Because the Center has a special library and I supervise the librarian, I have been invited to discuss the administrator's view of the special library. For simplicity, I will talk about "the librarian." The problems I mention will, of course, be compounded where the administrator must deal with a hierarchy of librarians and library technicians.

THE BASIC PROBLEM

Let us assume that the decision has been made that the agency must have its own special library and can meet the space and cost requirements. Then the administrator must do three things:

1. Define exactly what library services the agency needs.
2. Hire the library staff.
3. Supervise the library staff so that the needed services are provided within the resources available.

WHAT THE LIBRARIAN CAN EXPECT FROM THE ADMINISTRATOR

The first task of the administrator setting up a special library or hiring a librarian is defining the library's goals and limitations. The librarian has a right to expect a clear definition of the services required, the space and funds available, and the agency's priorities. The administrator should not only define these, but should keep the librarian informed as definitions change. Both in writing the job description and in supervising, the administrator should respect the librarian's capacities as a professional and not oversupervise. Contacts with librarians and other information specialists are a vital part of the job, and the administrator should support and encourage participation in meetings, workshops, and the like. Finally, the administrator should see that the agency staff is informed as to what they may reasonably expect from the librarian, and be prepared to support the librarian when users expect too much.

Although all these are reasonable expectations, the librarian should remember that the administrator often knows very little about running a library and may require educating before he can perform effectively as a supportive supervisor.

WHAT THE ADMINISTRATOR CAN EXPECT FROM THE LIBRARIAN

Special libraries always have more or less severe limits of space, funds, and agency priorities. Whether these remain the same year after year or change rapidly, the administrator expects the librarian to work within them and still provide the best library services possible with a minimum of detailed supervision. If you think this means the administrator expects the librarian to be some sort of wizard who can produce daily miracles on a shoestring budget, you may be right. Nevertheless, I believe there are certain reasonable things the administrator can ask.

First, the administrator expects responsible management of the library's operations. For example, the librarian should be capable of preparing a realistic budget and staying within it, unless there is some unexpected emergency. The librarian must establish and maintain effective working relations with the administrator. The librarian should keep him informed of the quantity and quality of the services being provided and of changes being made. Usually, the librarian tells him very little of what is going on, unless some proposed improvement involves unplanned expenditures or an increased budget. Fortunately, if the library services become too ineffective, the administrator will usually find out through the complaints of users.

Equally important, of course, is the way the librarian serves the agency staff. In a special library, the age-old functions of acquisition, organized storage, and dissemination require special interpretation.

The choice of what to acquire and keep in the library's permanent collection may pose a difficult problem. The space available is always limited, so only the reference material basic to the needs of the agency can be kept on the shelves. To choose this material intelligently, the librarian must know and evaluate its cost, its availability elsewhere, and its importance to the users--that is, how well it serves current agency objectives. On occasion, especially if the agency objectives are altered substantially, the librarian must use the same criteria to eliminate some references and substitute new material. (It is astonishing how difficult it is for some librarians to decide that certain books are no longer needed and take them off the shelves; apparently this is wholly contrary to instinct.) In other words, the special librarian must constantly be alert to the current vital needs of the agency and maintain the collection accordingly. In this, some librarians seem to need the administrator's help. One solution is to name a library committee, composed of regular library users who keep abreast of changing agency needs, to share with the librarian the responsibility of deciding what should be acquired and what can be released.

Because the permanent collection is small, users can find relatively little specialized material on the shelves, and the librarian's ability to find it for them becomes of critical importance. The special librarian is almost constantly engaged in searching for relevant reference material and arranging for loans or copies--usually with a short deadline. This is all the more necessary, and difficult, when the agency is some distance away from any large, general library. To do an adequate job of reference-finding under these circumstances, the librarian must know very thoroughly all the available sources of material in the subjects the agency is concerned with. This includes not only library collections, but such sources as bibliographies and computer data bases. Furthermore, the librarian must maintain good working relations with the librarians and other specialists who control these sources of material. With personal acquaintance, complex reference questions and loan arrangements can often be handled by a simple phone call.

Of course, even if the librarian has developed the best reference-finding system in the world, it will do the agency no good if the staff members do not use it. The librarian must educate the users so that they know what he can, and cannot, do for them.

Suppose an influential Congressman from the Midwest calls with a problem. Sportsmen tell him that red foxes are eating so many pheasants, quail, and rabbits that the quality of hunting is very low. Farmers complain that red foxes are taking their poultry, and it is putting them out of business. The environmentalists say the sportsmen are biased and fail to see that game animals are at a low in the population cycle and that it has nothing to do with red foxes. They also point out that if the farmers practiced wise poultry husbandry, poultry would be confined and not available to foxes. Further, the foxes eat rodents that are destroying the farmers' crops. The Congressman then says, "I want an unbiased scientific evaluation of this problem." The staff biologist who is assigned to answer the Congressman must make a thorough evaluation of existing knowledge of the subject--a preliminary evaluation within 10 days and a definitive study of the literature within 6 months. He must also set up and maintain an up-to-date annotated bibliography. However, he does not need all possible references on the subject; for example, he can ignore those from "popular" publications.

If the user has decided that the librarian's greatest capability lies in dusting the books on the library shelves, he will go on his own search of the literature. Very likely, he will not have the limits of his subject matter clearly in mind, will do things the hard way, will miss all but the obvious sources, and will end up spending a great deal of his high-salaried time to get incomplete material.

If on the other hand he has developed confidence in the librarian to provide complete, thorough, and reliable support within recognized limitations, we have an effective team. The librarian will discuss the problem with him, drawing him out until they both have a clear understanding of the subject matter to be searched. The librarian can then, quickly and efficiently, guide him to both the obvious and obscure sources of this literature. He must, of course, understand that, while the librarian can guide him to the literature, evaluating the biological worth of the material lies with him.

Thus, the special librarian has a lot of educating to do. He must educate himself to quickly and efficiently find all sources of reference material on a variety of subjects. Superficial and incomplete searches can result in embarrassment to the staff and wasteful duplication of research. And he must educate the library users. They must learn that they should go to him when they begin a search for references, but that they are the ones who evaluate the material they get. They must learn how to clearly define what they want at the outset, not halfway through or after the search. And finally, they must learn that the librarian is neither an authority nor a slave, but a partner in a team effort. The effective librarian will quickly establish this kind of working relationship with all the staff he serves.

In addition to the major functions I have discussed, I believe there are other things the administrator can sometimes reasonably expect the librarian to do. He can be made responsible for the storage and distribution of publications authored by agency employees. From the librarian's viewpoint, this is channeling information in reverse of the usual flow but is desirable because he probably knows better than anyone else where these publications should go. It also serves to inform him of the agency's activities, past and present.

Another thing that can be encouraged and participated in by the librarian is the preparation and publication of bibliographic material, particularly annotated bibliographies. This, too, can be a team effort between the librarian and the subject-matter specialist. At one time, bibliographic studies were looked on by some scientists as second-rate science, but the greatly expanded publication efforts of recent times have made them not only respectable but virtually essential. Finally, the librarian can perform a most important service by reviewing the Literature Cited sections of manuscripts and any quotations and paraphrases from it in the text. While anything in a manuscript is ultimately the responsibility of the author, checking by a skilled librarian can save the author and agency embarrassment.

CONCLUSIONS

The administrator must justify the special library for his agency, define its services, supply it with space and funds, and supervise its operations in a general way. However, the value of the library to his agency will not be measured in terms of what the administrator puts into it. In the end, the one thing he must do right is to find and hire the right librarian. He must select an intelligent and inquisitive person who is fascinated by uncovering needed information; who knows where things can be found, or whom to ask; who responds flexibly to changing agency needs; and above all, who can win and keep the respect and trust of the agency staff. If the administrator can do this, his job of assuring adequate library services will be easy; if he cannot, it will be impossible.

BUDGET FORMULATION AND EXECUTION IN THE LARGE FEDERAL LIBRARY

Frances F. Swim, Chief, Field Libraries Branch, Envieonmental
Science Information Center, National Oceanic and Atmospheric
Administration, Department of Commerce

Abstract:

Budget formulation is fundamental to library management. It is much more than a process of working with figures to produce a financial report. Today more librarians are recognizing that the concept of budgeting includes activities related to planning, coordinating, and monitoring the entire operation of the library. Federal libraries must prepare their budgets within the framework of the guidelines of OMB and their Parent agencies. Object classes for estimates are described, program and financing by activities are discussed, and the need for justification statements considered. A sample budget for a large Federal library is developed.

Budget execution and control are briefly mentioned within the time span of the budget cycle.

All of us are aware of the importance of funding to conduct library Services. Simply stated, few dollars, limited or reduced services. The news media have reported the numerous cuts in Federal funding, scaling down or elimination of various programs, and the outcry of the people who have been affected by these budgetary reductions. Today all of us would agree that the budgeting process is a most important management tool. Whereas, library budgeting was formerly narrowly defined in terms of working with figures to produce a financial report, in recent years more librarians are recognizing that the concept of budgeting must be extended to include activities related to planning, coordinating, and monitoring the entire operation of the library. Emphasis is placed on (1) planning, which involves the setting of objectives, standards, and criteria for performance measurement, and (2) reporting or information feedback generated at regular intervals to show the extent to which costs have varied from the budget plan and the reasons for these variances.

In the time allotted here this afternoon, we will consider the budget technique employed by one Federal library and show how this process involves program planning and management by objectives. There will not be time to deal effectively with the process of control which involves the reporting at regular intervals to show the variations in costs from the original budget. However, this is also an essential process and must be undertaken. These reports can be used as basic information for formulation of the budget in succeeding years.

All Federal agencies must prepare their budgets according to the guidelines set by the Office of Management and Budget. This is OMB Circular A-11 Rev. Also published by OMB is a useful document entitled Preparation and execution of the Federal budget, 1971. Each agency formulates regulations and rules under which its budget system operates. In NOAA these are contained in NOAA Handbook No. 10: Budget Policy and Procedures Handbook. Estimates are presented on a form based on object classes. Cost elements are presented under the following identification codes:

codes:

Object (Slide 1 - Detail of Budget Increase)
Class

11 Personnel compensation

Manpower planning is important here. How many new positions will you require? At what grade levels? Of course, one must have a list of all current employees, their grade levels, salaries, and project increases which may occur during the budget year (the fiscal year for which these estimates are prepared). How many promotions may be recommended? With the inflationary factors at work in the national economy, one must allow for general raises in salaries also. Salaries constitute the major portion of the library's budget. In FY 73 our agency spent over 70% of its authorized funds on personnel compensation and benefits.

12.1 Personnel benefits

These include the fringe bendfits, retirement, health and life insurance premiums, etc. These are computed in our agency at the rate of 8.0% of the base salary.

13 Benefits for former personnel

These comprise pensions, annuities, or other benefits due to former employees or their survivors based (at least in part) on length of service other than benefits paid from funds financed as in 12.1.

21.0 Travel and transportation of persons

This includes all transportation costs, perdiem allowance, and incidental expenses for employees while in authorized travel status. Here is an important item. How much can be allowed for travel and per diem costs to conferences? Each division chief or supervisor in the library should be providing input for this item as he or she considers the career development needs of the staff for whom he is responsible.

22.0 Transportation of things

This involves expenses for moving of household goods or staff in change-of-duty station, or hiring new employees whose residence is at a location other than place of employment and household effects must be transported.

23.0 Rents, communications and utilities

Most of these costs constitute overhead. Unless the library has its own building, such costs for rent, light, and heat are not required. However, communications costs could be quite substantial.

24.0 Printing, reproduction and binding

Object
Class

The printing of library publications, bibliographies, and binding are estimated in this object class. Catalog card reproduction of the production of a book catalog may also be included.

25.0 Other services
Here are entered contractual services, such as Xerox or photoreproduction rental services, computer services, etc. This will be a large cost item as more libraries automate.

26.0 Supplies and materials
In this class a large portion of estimates for the library are covered. Subscriptions are grouped here. Again one must allow for inflationary factors. The cost of periodicals has risen rapidly and new titles are proliferating. Salaries, collection development, and automation constitute the largest elements in the library budget.

31.0 Equipment
Books are grouped in this category. Other equipment items are microfilm reader/printers, typewriters, furniture, etc. In this object class, greater variations from year to year will appear. Initial outlay for some equipment will necessarily reflect higher estimates for that budget year. A decrease can be shown in succeeding years and is expressed as a minus on the appropriate form.

NOAA Form 32-4, Detail of Budget Increase, FY 19__ must be completed for object class estimates for each level of operation to contribute to the total budget for the Major Line Component of which the library is a part. At the bottom of this form is a personnel summary section on which all permanent positions are identified. The section is a further breakdown of Object Class 11 and provides useful information on grade level distribution.

We have reviewed the cost elements which are required in submitting estimates in the Federal budgeting system and related them to library operations. Very few of our Federal libraries can be identified as such in the Budget of the United States, which is presented to the Congress by the President each January. The national libraries and the Natural Resources Library are the only ones, I believe, that enjoy this distinction. The rest of us are included under certain activities performed by our parent agencies.

However, all of us, on whatever level we are in our organizations, should be establishing objectives for the accomplishment of certain services and know what these services may cost in terms of time, staff, and dollars. A good budgeting system helps the library to accomplish its service objectives more efficiently. To provide a program and financing statement translates the object class estimates into program by activities. Such a document can tell the story of the library's functions to the budget officer of the department or administration as words can never do. It is a useful document for internal management. The librarian must measure the past year's performance and project needs for the current and budget year.

Documentation is needed to justify the estimates. Practice varies from agency to agency. As a rule, the tendency is to make a short statement and indicate the impact of the budget estimates upon the operations. (Slide 2 - Increase requested) (Slide 3 - Justification)

The budget process which I have tried to describe briefly this afternoon covers approximately 27 months from preparation on the task level through execution. It is revised by several officers in the organizational hierarchy before it is merged into the department's budget, and presented to the analysts in the Office of Management and Budget, which is directly responsible to the President. OMB formulates the Budget which the President presents to Congress. Hearings are held by the Appropriations Committee in the House. These are followed by a vote in the House of the budget as amended by the Committee. After passage by the House the Appropriations Bill which contains a budget for each department or combination of several independent agencies is forwarded to the Senate which must report on a final version before the bill is passed and sent to the President for signature. When the President signs the bill and it becomes law, the agency receives from Treasury a certified copy of the appropriation warrant which contains the signature of the Comptroller-General and the Treasurer of the U.S. The agency then must make any required adjustments as it allocates funds to the major line components. Now the budget becomes the cost operational plan under which the agency operates for the 12 months of the fiscal year. (Slide 4 - Cost Operating Plan)

Adjustments must frequently be made by the library as it continues operations under a plan or budget which has been amended. Such adjustments can be effected more easily as librarians and library administrators become familiar with budgeting techniques and use them to develop alternate ways to achieve new objectives.

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ESSA FORM 32-4
(4-70)

U.S. DEPARTMENT OF COMMERCE
ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION

DETAIL OF BUDGET INCREASE, FY19 ___

ITEM OF INCREASE

ESTIMATE FOR:
DEPARTMENT ☒ BOB ☐ CONGRESS ☐

APPROPRIATION: 09000
ACTIVITY: Environmental D. & Inf. Services
SUBACTIVITY: Environmental Doc. & Inf. Services
LINE ITEM: Archival and Retrieval Services

PREPARED BY: Katherine Frank
PHONE: 183-6821
MAJOR LINE COMPONENT: EDS
DATE PREPARED: July 30, 1973

OBJECT CLASS	DESCRIPTION	NUMBER OF POSITIONS	MAN-YEARS (initial year)	COSTS INITIAL YEAR	COSTS RECURRING (FULL) YEAR
11	PERSONNEL COMPENSATION				
	PERMANENT POSITIONS: GENERAL SCHEDULE	75	71	872200	961700
	PERMANENT POSITIONS: OTHER (Identify)				
	TOTAL PERMANENT POSITIONS 1				
	OTHER POSITIONS: TEMPORARY POSITIONS	1	1		
	OTHER POSITIONS: ALL OTHER (Identify)	2	.5		
	TOTAL OTHER POSITIONS	3	1.5	48500	-
	OTHER PERSONNEL COMPENSATION				
	OVERTIME				
	NIGHT DIFFERENTIAL				
	FOREIGN DIFFERENTIAL				
	OTHER 2				
	TOTAL OTHER PERSONNEL COMPENSATION			48500	-
	TOTAL PERSONNEL COMPENSATION			920700	961700
12	PERSONNEL BENEFITS				
	RETIREMENT, HEALTH, AND LIFE INSURANCE			68100	76900
	MOVING ALLOWANCE (PCS)				
	COST OF LIVING ALLOWANCE				
	OTHER 2				
	TOTAL 12			68100	76900
21	TRAVEL				
	PERMANENT CHANGE OF STATION				
	OVERSEAS HOME LEAVE				
	OPERATIONAL TRAVEL			5000	3000
	OTHER TRAVEL 2			4000	2000
	TOTAL 21			9000	5000
22	TRANSPORTATION OF THINGS				
	HOUSEHOLD GOODS			1400	-
	OTHER 2				
	TOTAL 22			1400	-
23	RENTS, COMMUNICATIONS, AND UTILITIES				
	RENTAL OF DATA PROCESSING EQUIPMENT (Specify type and number of hours) 2				
	RENTAL OF GENERAL PURPOSE SPACE				
	RENTAL OF SPECIAL PURPOSE SPACE (State number of square feet and rate) 2				
	RENTAL OF LAND OR EQUIPMENT 2				
	COMMUNICATIONS (Type) 2			2600	2800
	UTILITIES				
	TOTAL 23			2600	2800
24	PRINTING AND REPRODUCTION — TOTAL 24			35000	35000
25	CONTRACTUAL SERVICES				
	CONTRACTS FOR RESEARCH AND DEVELOPMENT 2			19500	-
	SERVICES OF OTHER GOVERNMENT AGENCIES (Identify if significant)				
	OTHER CONTRACTUAL SERVICES 2			80000	70000
	TOTAL 25			99500	70000
26	SUPPLIES				
	GENERAL OFFICE SUPPLIES			1000	800
	OPERATING PROGRAM SUPPLIES 2			60000	60200
	TOTAL 26			61000	61000
31	EQUIPMENT				
	GENERAL OFFICE EQUIPMENT			1600	400
	OPERATING PROGRAM EQUIPMENT 2			38400	39600
	TOTAL 31			40000	40000
32	LANDS AND STRUCTURES 2 — TOTAL 32				
41	GRANTS, SUBSIDIES, AND CONTRIBUTIONS 2 — TOTAL 41				
	TOTAL OF OBJECTS 12 THROUGH 41			316600	290700
	TOTAL COST ESTIMATE			1237300	1252400

1 IDENTIFICATION OF PERMANENT POSITIONS

NUMBER	GRADE	POSITION TITLE	ANNUAL SALARY	LOCATION (City and State)
1	GS 15	Director NEDISA Library	26900	Washington, D.C.
4	GS 14	Depty Dir./Branch Chiefs	92400	Washington, D.C.
6	GS 13	Asst. Branch Chiefs/Collect. Dev. Off. Automation Librarian	118200	Washington, D.C.
6	GS 12	Senior Reference and Catalog Librarians	90100	Washington, D.C.
14	GS 11	Supervisory librarians	19[illegible]944	Washington, D.C./Miami FL
5	GS 9	Librarians	58070	Washington, D.C.

☒ Continued on reverse.

ESSA FORM 32-4 (4-70)

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2 Identify or itemize on reverse side.

NATIONAL ENVIRONMENTAL DATA AND INFORMATION SERVICES ADMINISTRATION
INCREASE REQUESTED

	CODE
MCC:	508
Appropriation:	090000
Level 1 (Service/Subcategory)	
Level 2 (Program Element)	
Level 3 (Program Sub-element/Sub-Program)	
Item of Increase: Library operations	090007505
Category:	03
Priority (within Appn.)	
Priority (General)	

Increase or Decreases

FY	Limitation Code	Positions	Amount (In Thous.)
74		+4	+48
75		+1	+10
76		+1	+ 8
77		+1	+ 5
78		--	+ 7

JUSTIFICATION

1. OBJECTIVE: Build up the headquarters library and extend services to field libraries in order to maximize the literature - based information services of the agency and related institutions which are concerned with the environment - its resources and their development, protection, modification and the effect on all forms of life.

2. SECONDARY OBJECTIVE: Create an effective functioning NEDIS library system, so that NEDIS Personnel and others wherever they are located may obtain needed information quickly and economically.

3. BENEFITS: Quick access to current and retrospective literature, not only within the NEDIS libraries but also through the holdings of other Federal, State, academic, and other scientific libraries with which NEDISA libraries have co-operated.

4. END PRODUCT: A sufficiently complete and current literature base for NEDISA available when and where needed, also a staff adequate in size and expertise to give prompt response to needs and research interests of the agency and other scientific organizations.

5. USER(S) I.E. TARGET GROUPS: NEDISA scientists and administrators, NEDISA contractors, scientists and technical experts in other Federal, State, and local government agencies, non-government organizations, and private citizens.

6. SPECIAL REQUIREMENTS: Attachment A shows: (1) Proposed contract for $30000 for computer-aided cataloging system; and (2) Proposed contract of $25000 for network development.

7. IMPACTS: If submission is reduced by 25%, item of increase #7 (network development) will be postponed to following FY75: If submission is reduced by 50%, item of increase #5 will be drastically reduced and cataloging arrears will remain at their present level.

8. SUPPORTING DOCUMENTATION:
   Center's Director's Program Memorandum, 1973

NOAA FORM 32-2a
(1-72)
PART I

NOAA
COST OPERATING PLAN

U. S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

FISCAL YEAR 19 74

SECTION I – PLAN IDENTIFICATION

1. FINANCIAL MANAGEMENT CENTER NEDISA	2. ORG. CODE 508	3. APPROPRIATION/FUND TITLE Environmental Monitoring & Prediction	4. APPN. CODE	5. PLAN STATUS A ☒ ORIGINAL B ☐ ADJUSTMENT (+ or -) C ☐ REPLACEMENT

6. PROGRAM LEVEL		7. PROGRAM CODE	8. PROGRAM TITLES
1	SERVICE	508	Environmental Data & Information Services
2	PROGRAM	090007	Environmental Documentation & Information Services
3	PROJECT	0900074	Archival and Retrieval Services
4	TASK	090007505	Library Operations

SECTION II – OPERATING COST (Dollars to nearest hundred)

LINE NO.	OBJECT CLASS		JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	SEMIANNUAL TOTAL	ANNUAL TOTAL
11	PERSONNEL COMPENSATION									
	BASE PAY	COMMISSIONED OFFICERS								
		OTHER FULL-TIME PERMANENT	66300	99500	66300	67500	67500	68600	435700	893700
		ALL OTHER	2500	3700	2000	1500	1500	2000	13200	27000
	LESS ESTIMATED LEAVE	COMMISSIONED OFFICERS								
		OTHER FULL-TIME PERMANENT	4000	4200	3800	3500	3600	4000	23100	48000
		ALL OTHER	100	100					200	500
	BASE PAY IN DUTY STATUS	COMMISSIONED OFFICERS								
		OTHER FULL-TIME PERMANENT	62300	95300	62500	64000	63900	64600	412600	845700
		ALL OTHER	2400	3600	2000	1500	1500	2000	13000	26500
		SUBTOTAL	64700	98900	64500	65500	64400	66600	425600	872200
	ADD	LEAVE SURCHARGE	4100	4300	3800	3500	3600	4000	23300	48500
		OTHER COMPENSATION								
		TOTAL DIRECT LABOR	68800	103150	68300	69000	68000	70600	448900	920700
12.1	EMPLOYER CONTRIBUTIONS S/C		3500	4500	5300	3600	3600	3700	22400	47100
12.2	OTHER PERSONNEL BENEFITS		1600	2000	1600	1600	1600	1600	10000	21000
13	BENEFITS FOR FORMER PERSONNEL									
21	TRAVEL & TRANSPORTATION PERSONS				2800	400	300	700	4200	9000
22	TRANSPORTATION OF THINGS					1000				1400
23	RENTS, COMMUNICATIONS & UTILITIES		100	100	200	200	200	200	1000	2600
24	PRINTING AND REPRODUCTION		8000	8000	7000	3000	3000	2000	30000	35000
25.1	NON-FED. CONTRACTUAL SERVICES		5000	5000	5000	5000	5000	5000	30000	80000
25.2	FEDERAL CONTRACTUAL SERVICES		2000	1500	2500	3000	1000	2000	12000	19500
26	SUPPLIES AND MATERIALS		5100	5000	10000	10000	10000	8000	48100	61000
31.2	NON-CAPITAL EQUIPMENT		3400	3000	1500	1000	1000	1500	11400	40000
41	GRANTS AND SUBSIDIES									
42	INSURANCE & INDEMNITIES									
43	INTEREST & DIVIDENDS									
50	DEPRECIATION									
60	FUTURE RETIRED PAY, COMM. OFF.									
	TOTAL DIRECT COST		97500	132300	102400	97800	93700	95300	619000	1237300

SECTION III – POSITIONS AND MAN-YEARS (Man-years to nearest tenth)

		JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	SEMIANNUAL TOTAL	ANNUAL TOTAL
POSITIONS	FULL-TIME PERMANENT								
	ALL OTHER								
MAN-YEARS	FULL-TIME PERMANENT	71	71	71	72	72	73	71.6	75
	ALL OTHER	4	4	2.5	1	1	1.5	3.6	4

SECTION IV – PROCUREMENT PLAN

PART 1 – OBLIGATIONS (Dollars to nearest hundred)

		JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	SEMIANNUAL TOTAL	ANNUAL TOTAL
24	PRINTING AND REPRODUCTION	8000	8000	7000	3000	3000	2000	30000	35000
25.1	NON-FED. CONTRACTUAL SERVICES	5000	5000	5000	5000	5000	5000	30000	80000
25.2	FEDERAL CONTRACTUAL SERVICES	2000	1500	2500	3000	1000	2000	12000	19500
26	SUPPLIES AND MATERIALS	5100	5000	10000	10000	10000	8000	48100	61000
31.1	CAPITAL EQUIPMENT	3400	3000	1500	1000	1000	1500	11400	40000
31.2	NON-CAPITAL EQUIPMENT								
32	LAND & STRUCTURES								
33	INVESTMENTS & LOANS								
41	GRANTS AND SUBSIDIES								
	TOTAL	23500	22500	26000	22000	20000	18500	131500	235500

PART 2 – DELIVERY SCHEDULE (Dollars to nearest hundred)

		JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	SEMIANNUAL TOTAL	ANNUAL TOTAL
24	PRINTING AND REPRODUCTION			8000	8000	7000	3000	26000	35000
25.1	NON-FED. CONTRACTUAL SERVICES		5000	5000	5000	5000	5000	25000	80000
25.2	FEDERAL CONTRACTUAL SERVICES	1000	2000	1500	1200	2000	1000	8700	19500
26	SUPPLIES AND MATERIALS	5000	5100	8000	9000	8500	11000	46600	61000
31.2	NON-CAPITAL EQUIPMENT	200	2000	800	1200	2000	1800	8000	40000
41	GRANTS AND SUBSIDIES								
	TOTAL	6200	14100	23300	24400	24500	21800	114300	235500

REMARKS

THE METAMORPHOSIS OF A LIBRARY

Paul R. Thomas
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ABSTRACT

The use of the multi-media systems approach as an integral part of the school's curriculum is discussed. The problems of course selection, equipment operation and selection, unit length and design and scheduling are discussed.

Specific instances of student behaviors, changes in achievement rates, and skill acquisition are given.

Our students need to be programmed into an individualized structured learning situation with a minimum of administrative handling time. The multi-media Instructional Materials Center systems approach gives both immediate student access to the curriculum and individualized program flexibility.

Of initial importance to our staff is establishing in a newly arrived student a positive or a neutral reaction toward learning. This is greatly complicated by the conditioned reaction most of our students have towards school - in any form.

At the risk of understatement, our students present severe educational problems. Any instructional system capable of furnishing appropriate learning units without the stigma of authority, repetition without anger or instructor fatigue and upon demand, negates many behavior problems that interfere with student success.

A multi-media system approach allows us to gain additional insights into a student's abilities, interests, and overt behavior patterns without the pressures of "group" oriented classroom achievement. These insights provide valuable information in designing a student's academic and vocational programs.

Our multi-media system designs include student carrels with audio and visual machines designed to coordinate media presentations given students. The multi-media systems approach has eliminated, or at least limited, negative student-teacher contacts, thus maximizing the possibility of a student having initial positive reactions to the education programs available.

Most of our students' past histories show an inability to cope with learning as a member of a group. Group normed achievement rates have usually been beyond them. Past repeated failures compounded with failure in front of peers have resulted in a refusal to accept school as necessary to their needs and the identification of school as "punishing place."

Repeated student failure is not an emotional experience for a machine, machines do not castigate students nor lose self-control.

By allowing the pace of learning to be established by the student, we eliminate another punishment factor inhibiting student performance, i.e., group norms. Pace is a function of a student's baseline achievement as established by a structured testing program.

With all these outcomes and assumptions in mind, we designed a pilot system at the Kennedy Youth Center utilizing five standard language 1/2 track laboratory tape recorders, twenty-four dial accessible audio sources, six student stations equipped with dial accessible video monitors, four video sources, two of which are automatic, seventeen student stations which are dial accessible, and fourteen stations with carousel projectors. The Englewood system presently uses audio-cassette decks and carousel projectors for twelve carrels.

Once the equipment was installed at Kennedy Youth Center, the first consideration was given to a learning unit's length, in time, for completion. The design of the equipment allowed us to design units which could be short in length, utilize several types of media simultaneously, and be valid for literates and illiterates alike.

The length of the learning units had to reflect the average length of attention span exhibited by our students in more standard learning situations. After observing many of our students in various educational situations, the average time students were observed to sustain levels of achievement behaviors was thirty-five minutes. Longer than thirty-five minutes and students began to exhibit signs of random moving about, staring, talking, sleeping, bathroom usage increased, or other overt signs of not being involved.

The twenty minute learning unit was finally settled upon as being the optimum length. Of course some units are shorter and some are longer. But, all areas of our curriculum using the multi-media center system or its components have had their learning units adapted to the basic twenty minute limitation where at all practical. This is true of both institutions now. Next, we considered what courses to offer at Kennedy Youth Center.

The major consideration was determining areas which were identifiable as weak in curriculum offerings. English and the concept of industrial technology seemed to be the most obvious areas. English because students' performance was consistently lower on the GED language tests and industrial technology because students were unable to set appropriate goals within a technological literacy curriculum.

After establishing the time unit and the major course areas, the sorting out of useless material and structuring of content was next attempted. We say attempted because identifying useless material is highly subjective and arbitrary, especially concerning books.

The area of Industrial Technology was structured first. Six trial learning units were tried for two weeks on eleven students. During a trial two-week period on selected units, students were observed for discipline problems, test results, and completeness of student active involvement sheets. The purpose was to identify those units which students answered consistently incorrect or contained the highest number of incorrect responses either on the active involvement sheets or the unit test, or both.

As a result of this evaluation, units were divided into smaller units, one was eliminated and several required expansion to meet student desires, but the overall design proved to be effective enough to greatly expand this program and use the format for designing the English courses.

Next, decisions had to be made concerning the basic format of audio tapes, video tapes, slides, involvement sheets, and to test or not to test.

Hardware offers technical capabilities far beyond our staff's training and preparation time. Also, limitations of format were determined by our having had very little insight as to what would work in terms of satisfying our students' needs and what equipment was durable. We didn't know what would work, so we started organizing units around media with which we were already familiar.

Audio-tapes operating in sychronization with slides and video-tape programs were the two initial formats utilized to create compact learning units. Since we could not provide ten or twenty copies of each unit, we designed the courses so the units could be completed in any order.

At Kennedy Youth Center we had the basic equipment for converting 16 mm film to video-tape, thus insuring the immediate availability of relevant 16 mm materials as the students needed it. This capability allowed us to utilize our video equipment to a greater initial degree than was anticipated, not withstanding the horrendous technical problems created by video.

Sixteen mm films are used in conjunction with active involvement sheets. But films are severely limited in number due to cost, relevancy to our student needs, copyright laws, and the time required to preview them. However, 16 mm films have several instrinsic reinforcers such as motion and color which are valuable as teaching tools. To utilize this film "magic", an airport type theater was established in a section of the IMC, which shows short films (10 to 25 minutes) on subjects ranging from abortion to the Sambiis of Africa. Students use this facility as they wish.

While some problems were caused by the production of visuals, most of the problems were and are created by the software components. These materials were and are in constant need of revision or expansion and in some cases deletion.

Student active involvement sheets were designed for every learning unit that was completed. The student is not to be passive, he is making lists, completing sentences, filling in blanks, labeling, or drawing as the unit progresses.

Most students do not care for the demands active involvement sheets make on them. They prefer to sit passively, watch and listen. They feel the sheets interfere with their learning and confuse the issue. This format was an approach with which they were not familiar. They have generally been able to sleep during visual presentations.

However, after finding they can repeat units as needed, without penalty, and that all the answers were given, most students accepted the materials as presented. This acceptance was evidenced, to us, by the number of students who would request help by either slowing down the presentation on their own, or reviewing the presentation in order to complete the active involvement sheet.

Further evidence of student acceptance is the consistent demand for papers to be checked as soon as they are completed and students meeting the 100% criteria for active involvement sheets. The level of cheating on the active involvement sheets as compared to the tests was found to be small (1 in 12 weeks) at Kennedy Youth Center. Data for Englewood is not presently available. In any event, the active involvement sheets are now used for all visual units and reading asignments.

Discipline problems rarely occur and deliberate destruction of equipment rarely occurred at Kennedy Youth Center (one audio recorder and two headsets in 24 months). An initial average of forty-five student contacts per day resulted in only two (on the average) negative behavior notations being written a day. The increase of contacts to 125 per day has resulted in 3 negative notations per week. Negative behavior notations usually require the student's counselor to take some action to eliminate future reoccurrence of the identified inappropriate behavior. At Englewood it is too soon to make an evaluation; however, in the 8 weeks since organized, there has only been one incident, and it occurred during the first week. Nor have any of the audio recorders and slide projectors been damaged.

In two years of operation at Kennedy Youth Center, little of the equipment, few slides (less than 1%) or active involvement sheets have been destroyed. Considering the history and background of most of the students, it seems reasonable to conclude that students are having their needs satisfied without feeling threatened to such a degree they must retaliate.

This conclusions is further strengthened by the fact both facilities are such that if a student chose to destroy the equipment, it could be done.

Music appears to be a valued form of recreation and relaxation for these young people; thus, cant is used as a reinforcer to establish desired behavior changes. Music is used as a payoff for consistent achievement levels at Kennedy Youth Center. However, student demands and achievement soon outdistanced our ability to provide music for all who had earned the privilege. The problem has not arisen at Englewood due to our not offering this payoff at this time.

Now, what gains were obtained in student achievement through these approaches and hardware at Kennedy Youth Center, and hopefully, will be experienced at Englewood.

It is difficult to prognosticate the successes, in numbers, of students radically improved by this approach. It is only a part of the total treatment program designed to help students modify their behavior. It is difficult to analyze the effects of a segment separate a part from the total programs.

It is also a master of understatement to say it is early to evaluate Englewood's Instructional Materials Center's effectiveness; however, some preliminary observations of Kennedy Youth Center's can be made. Some early data discussed, and maybe a couple of educated gueses as to program usefulness can be offered.

It would probably be most effective to start the evaluation by looking at the problems, the services and solutions the Center has created for the students and staff and then, the problems it has solved.

The first problem encountered was in giving directions, not necessarily why, but how.

How to get a student to properly operate the equipment and the how and why of using active involvement sheets, while simultaneously keeping the directions short and concise lead to the monkey see, monkey do approach. Each student or group of students is given a demonstration and explained the rational for their using the units.

Initially, this procedure was very time consuming, but within two weeks the majority of students knew how to use the equipment and these students in turn helped other students to use the equipment. Again, Englewood is just now beginning this approach, and has not had the problem.

An asset that has come to light using the student teaching student approach, is the usually introverted isolated student has valuable information and gains status by being able to instruct other students. For many of these students, this is the first time they have been sought out and their knowledge valued.

Another significant behavior at Kennedy Youth Center was the diminishing need to verbally push students to get started. After the first week (5 to 10 hours), there rarely occurs the need to verbally stimulate the students to get to work, they start on their own. However, the teacher must move around giving verbal praise to students working hard or give aid to students having problems. At Englewood, we are experiencing the same problems, but they are diminishing.

A behavior change noted at both institutions is the eventual demand by the student to spend a couple of minutes taking a smoke break. The usual behavior pattern is to take the break as a regular part of the wasted time routine, now a student gets a smoke break because he earns it. There are fewer smoke breaks. The smoke and bathroom calls got to be such a problem at Kennedy that a bonus system was started which paid the student tokens not to take smoke or bathroom breaks. This has reduced the breaks from 16 a day to 7 a day in three weeks. Now, a look at basic formats.

The basic slide-sound type unit has proven itself to be most effective in at least four ways.

First, the form itself has a tremendous halo effect. Many students are motivated by being able to use the equipment. These students seem to realize the importance we have placed on helping them, because they know the equipment is expensive.

This inference is further born out by the fact that at Kennedy Youth Center there was only one instance of deliberate damage to a piece of equipment in 18 months.

Secondly, the sound-slide units have been effective as review. Students requiring only review can proceed at their own pace as their needs dictate.

Third, the sound-slide units are helping those students who can read, but need practice, by giving eye-ear-hand practice. They see the word, hear the word pronounced properly, and they write the key words or phrases on their active involvement sheet. This practice has accelerated several students through both the Math and Reading classes at Kennedy Youth Center.

At this point in time, there is not enough data available to substantiate this at Englewood.

Fourth, the sound-slide units in their initial form, proved to be inadequate for the illiterate student. While these students could follow the narration, they could not function with the active involvement sheets. Some students tried, became frustrated and quit. At first, we tried to eliminate the involvement sheets, and would quiz the student verbally. This proved to be totally inadequate because the staff did not have the time to ask the student questions.

In attempt to solve the problems of the illiterate student, a decision concerning priorities had to be made. Was it the purpose of the program to concentrate solely on teaching basic academic skills or should a program concentrating on basic job skills with some attention to basic academic skills also be designed as an alternative for students with severe learning problems.

A decision was made to devise a media program teaching basic industrial arts skills to students who were identified as illiterate and/or borderline trainables as measured on the Revised Beta Non-Verbal IQ test and/or a psychiatric evaluation.

The illiterate student responds to questions by talking into a microphone and records his answers on track two. After the student completed the unit he turned the tape into the teacher for evaluation.

These units also proved to be too time consuming for staff. Kennedy Youth Center now uses a sound-slide presentation for basic reading skills and word building, a slide show and tell approach for industrial arts units, and labeling responses to questions as the evaluation method. Englewood will be using a similar approach.

Prior to the incorporation of the multi-media systems, the usage of the Kennedy Youth Center library ran about 18 contacts per day out of the total student population. At the present time the usage is 10 percent based upon the number of students regularly scheduled in the Center only, the total daily school contacts (contacts average 229 over a seven week period, since the Media Center is open 7 days a week, 12 hours a day. At Englewood the average was 12 per day and is now 78.

Before using the multi-media approach at both institutions, less than five percent of the students elected to spend their free time in the Centers. At the present time many students ask to spend their free time in the Center reading, completing learning units, and watching television. In fact, the number of requests have caused us to stop the free time use of the IMC until a more adequate system of accounting for students is begun.

Before the use of music as a reinforcer at Kennedy Youth Center, the Driver Education course took an average of eight weeks to complete. Using music as a contingent reinforcer, i.e., by earning 90% of all possible points you can listen to music, the average time for completing Driver Education was reduced to five weeks. Since music has been discontinued, the average completion time has increased. At Englewood, the Driver Education course is presently being reorganized and will be placed in the IMC when completed.

Prior to the organization of the multi-media center, no students were regularly using the Center for research or viewing audio-visual materials. Presently, all classes require their students to complete specific audio-visual units before they can complete the course.

All these developments have created our most significant problem-student traffic.

Personnel at both centers are having trouble setting up units, correcting tests, passing out active involvement sheets, checking out equipment, modifying existing units, and helping other staff develop audio-visual units. Center usage has grown much faster than we anticipated and as a consequence has forced us to continually streamline our procedures to minimize lost student time due to staff procedures.

Many of our students either lack study skills totally, or they are severly limited. The Kennedy Center has several units directed specifically at helping the student acquire study skills and Englewood soon will have similar units.

The multi-media approach to introducing basic parts of shop machinery has resulted in developing a mini-instructional materials center designed to provide learning units dealing with the industrial arts and vocational training courses and this is true of both Centers.

For the non-reader, the multi-media units on shop equipment have resulted in non-reader students being able to meet all criteria for completing units on a given machine. Prior to this media approach, only when an instructor had time did the non-reader get the required specialized instruction.

We have concluded that a total of forty-eight hours of constant exposure to multi-media is about the limit before a student begins to exhibit boredom and achievement levels become erratic.

The system has also proven to us that many students need the options of: being able to study in isolated carrels, or in a private room, or at an open table. The student that must show off to other students by defying authority, verbal assaultiveness or other games does not perform well at an open table. In a carrel his achievement improves, but, we have found that by placing him in a small room by himself with the required materials, his academic achievement generally improves and he soon moves back to the regular study situation.

In conclusion, the initial results of student performance in our Centers were excellent, has continued to increase, and more, warrants using the Center approach.

All initial data indicates our systems approach is a success in helping students to adjust to our school program, increase their completion rates, improve their study skills, increase their performance on the shop related materials, and justifies the expense of staff, materials, and furniture.

Part II - Information Services

Interlibrary Loan From The Viewpoint of A National Librarian

by Lida L. Allen, National Agricultural Library

ABSTRACT

The problem of interlibrary loans and their corresponding information flow needs of federal and research institutional users has been for some time a matter of concern on the part of national librarians. Recently, this concern and the attention focused on it culminated in a series of analytic studies devoted to various aspects of this problem ranging from the equitability of lending library distribution to the cost of such services. The relationship of these studies to the major national library policies such as those of Library of Congress, National Library of Medicine and National Agricultural Library is described; and the structural and operational problems specific to these libraries are discussed.

Introduction

Being involved in a large library lending operation day in and day out, one often loses sight of what ever changes, developments, or problems took place in the outside world, even on the subject of interlibrary loans. Not until Debbie Eaton asked me to say something about interlibrary loans from a national librarian's point of view that I gave the situation a closer look. The interlibrary loan service is a dramatic issue these days because it is beset by many unresolved problems that threaten its otherwise very promising future. It is an area of library activity that is largely untouched by the benefits of modern technology; it is a frequent victim of cost-cutting drives; and it is rarely a prime objective of long-range rational planning.

And yet the staggering expansion of scientific research, and the proliferation of data-processing techniques and equipment may boost the interlibrary loan activity to levels that are difficult to imagine. We all recognize that interlibrary loan is in serious trouble. The Federal Library Committee has established a special Task Force on Interlibrary Loan; its Chairman, Mrs. Elizabeth Tate, stressed that the current situation is sufficiently grave to warrant our immediate attention. I would like to discuss some of these problems and potentials in greater detail. Before I do so, however, permit me first to establish briefly the background of current operations of the interlibrary loan service in terms of three national libraries engaged in this activity: The Library of Congress, The National Library of Medicine, and the National Agricultural Library.

Library of Congress (LC)

In general, the Library of Congress is predominantly a research library and interlibrary loan operations play a secondary role. Last year the Loan Division made 243,000 interlibrary loan transactions. Considering the rich and vast holdings of the Library of Congress this loan volume is not commensurate with its resource potential. The Lending Division of the British Library last year filled a million and half interlibrary loans. If the Library of Congress liberalizes its interlibrary loan policy, the loan volume could easily surpass that figure which is really only a scratch on the surface of its wealth.

When we consider the type of users, we find that approximately one-third of the total loans were requested by Congress, one-third were borrowed by the federal libraries located in the D. C. metropolitan area, and the remaining one-third were requested by visiting scholars, the Library of Congress staff, and out-of-town libraries.

In its interlibrary loan policy there is no explicit statement that bound and unbound serials will not be loaned outside of the D. C. area. But for all practical purposes, the Library of Congress does not lend serials to out-of-town libraries. This has undoubtedly hurt the federal libraries in the field. For example, only 31,000 out of the 243,000 loans were made to libraries located outside the D. C. metropolitan area. The federal field libraries' requests represent only a portion of that number. Therefore, I say that we, the federal librarians in Washington, are fortunate to have the borrowing privilege and access to the Library of Congress collections.

The great resources of the Library of Congress deserve a special attention in interlibrary loan planning. I hope that the current studies funded by the National Science Foundation and the National Commission on Libraries and Information Science for the purpose of improving the interlibrary loan system will focus on the resources of the Library of Congress.

The Association for Research Libraries Advisory Committee feels that only the Library of Congress and the Center for Research Libraries in Chicago should be given the opportunity to indicate their views on a System for Interlibrary Communication and their possible interest in playing the management role in the system. My objection here is that we should not burden the Library of Congress with management responsibility -- which could be assumed by a number of existing organizations, or even by a new one created to take on the management role. The strength of the Library of Congress is in its resources. And we need a better way to exploit their richness.

National Library of Medicine (NLM)

The National Library of Medicine is a true national lending library for the medical community. The lending function is performed by 11 regional centers and over 100 participating medical libraries. NLM is the center for the Mid-Atlantic Region and at the same time it is the backup library for all the other regional centers.

The volume of interlibrary loans has dramatically increased in recent years. In 1968 NLM alone made 160,000 interlibrary loans. Last year the 11 regional centers processed in excess of half a million requests for interlibrary loans, of which 163,000 were filled by NLM. Approximately 50% of the 163,000 were delivered to the federal government in the mid-Atlantic states. However in the other centers the federal government requests amounted only to 10%.

It is interesting to note that of all the requests filled by the Regional Medical Library Program, 10 per cent were in the form of originals and 90 per cent were represented by photocopies.

The NLM uses a portable camera carried into the book stacks to copy the material in place, eliminating the need of moving publications to the photo lab. This way, except for monographs, the publications remain on the shelves at all times and NLM can achieve a very high delivery rate from its collection.

With a network of 11 regional centers and with NLM serving as the backup library, the Regional Medical Library Program has been successful in meeting the demand from our bio-medical community. If we could have several similar networks covering other subjects, or a gigantic program covering all subject fields, our interlibrary loan problem would be much closer to a meaningful resolution, at least for the research type of library. Another important point that is worth emulating is the fact that the Medical Library Program service is free, being directly supported by the government through the Medical Library Assistance Act.

The National Agricultural Library

The National Agricultural Library wears two hats when it comes to lending service. We have a departmental responsibility to provide library material to USDA employees, and to respond to the needs of the agricultural and biological community through the interlibrary system. However, budgetary considerations restrict our services to that community.

We have been continually shaping our lending policy in every feasible way to provide the maximum benefit to the users under ever changing but always more constraining limits on the budget. At this time our interlibrary loan policy, as it applies to different users, can be briefly stated as follows:

1. Service to USDA employees.

   Publications needed by USDA researchers or scientists may be requested directly from NAL, or via a USDA Agency Field library. We fill the requests either by lending the original or a photocopy substitution at no cost to the requestor.

   If we cannot fill a request, we borrow from another library. This is the only situation where we become a borrowing institution. Last year we borrowed approximately 17,000 documents from other libraries to satisfy our USDA clientele. Of this number, approximately 1,000 items were borrowed from foreign libraries.

2. Service to Federal Libraries Located in the D. C. Metropolitan Area, and 1890 Land Grant Colleges.

   We provide interlibrary loan service for books and photocopy substitutions of periodical articles at no cost to the requesting library.

3. Service to All Non-Federal Libraries and Federal Libraries Located Outside of the D. C. Area.

We provide interlibrary loan service for books but not for serial publications. However photocopies of individual articles may be purchased from our Paid-Photocopy Service.

We at NAL stress cooperation, understanding and flexibility in our lending service. While we closely adhere to our loan policy, we do, from time to time, break the established procedures to fill a request, if we feel that such an action is sensible and justifiable. For example, if we have several copies of a bulky serial that is requested by a remote library, we may send one original copy on loan even if it is a serial.

In fiscal year 1973, NAL filled a total of 150,000 requests, while the total for FY'68 was 226,000. The decrease was caused by the combined effect of the following factors:

1. Since 1969 both the government and industry have curtailed their research and development programs. This has directly affected the need of research literature.
2. NAL has established two regional document delivery coordinators. The coordinating library provides loan service to nearby USDA employees. NAL serves as a backup library when the requested document is not available at the regional library. Thus, NAL has been relieved somewhat in its interlibrary loan activity.
3. As the free NLM Regional Medical Library Program expands, many of the former NAL patrons, especially in biological and veterinary fields, tend to switch to the NLM.

Cost Allocation

You have seen from these sketches of the three national libraries in action some of the strengths and weaknesses of the interlibrary loan service. Among the problems that merit discussion, perhaps the most important is that of allocation of costs.

We are all dedicated to the proposition that scientific research constitues one of our most precious national resources. Its viability depends critically on an unrestricted flow of information. The interlibrary loan activity is a basic element in that flow. I am sure that no one here will disagree with principle that any considerations of library service, its improvement and plans for the future, must always be subordinated to the interests of nourishing national research. Any library that effectively restricts access to its holdings violates that principle and contradicts the essential purpose of its existence.

We are now, however, witnessing a variety of restrictions in the interlibrary loan service being widely introduced by many libraries. These restrictions may be based on geographic considerations, such as limiting service to the home state of the library, or on functional consideration, limiting service to a particular type of borrowing library, or they may take the form of charges to borrowing libraries. All restrictions appear to share the same justification, i.e., budgetary pressures. Whenever budget cuts are considered, the first thing to go on the chopping block is the lending service. But what such a library is really doing is cutting into a main artery of its organism. The prime library function in life is to maintain the flow of information and not merely to store documents.

The transfer of costs to the borrowing institutions is the most critical of the current restrictions imposed on interlibrary loans. While attempting to reduce the cost of interlibrary loans the lending libraries are merely transferring a part of the cost to the borrower. The total cost of each transaction remains the same. Precisely the same approach is evident in several ongoing studies of the cost problem: Vernon E. Palmour's paper, Equitable Methods of Financing Interlibrary Loan System and Dr. Hayes' study of A Feasibility Study of an Electronic Distributive Network as a Means of Facilitating Communication With Respect to Interlibrary Loans or (System for Communication (SILC)). Both studies are in various ways concerned with the transfer of charges. The first contains in its title an explicit reference to "equitable" distribution of cost. While such studies are clearly of value from the profit-and-loss viewpoint of the business world, they contribute little to solve the problem of the interlibrary loan community of which both the borrower and the lender are equal members. Redistribution of the cost burden among such members will unavoidably involve the additional cost of bookkeeping, defining the individual components of everybody's share in a given transaction, billing operations, etc. While the burden on the lender will lighten, the total cost to the research community as a whole will increase substantially. And it is the total cost to the community that I feel we should be concerned with in the first place.

Apparently Virginia Boucher shares my feeling about transferring charges. She stated in just b'TWX US, Vol 3, No. 1 Page 8, 1973:

> "... While the cost burden of lending for the large-volume lenders is a very definite problem which must be dealt with very soon in some effective way, the unilateral imposition of fees does not seem to be the best or the most equitable solution. It would appear to be completely counter to the present emphasis on making library resources more readily available to all users. The charging of fees simply generates more cost in terms of billing and collection, etc. ..."

The total cost of the service could be substantially lowered by an unrestricted use of photocopy. Incidentally, the electrostatic copying maching (Xerox) happens to be the only improvement our modern technology contributed to the interlibrary loan service. Unfortunately the cloud of the Williams and Wilkens case has dimmed that ray of sunshine for us.

As long as the copyright issue is not resolved, no one is willing to consider the "Photo-in-lieu-of-loan" principle as a major element of any interlibrary loan system. For example, the proposed National Periodical Resource Center could greatly benefit from this principle. In fact, its establishment may well depend on the way this issue is settled. Our hope resides in the proposed amendment offered by Edmond Low at a recent Senate hearing that "...making a single copy to aid in teaching and research, and particularly in interlibrary loan, is permissible and not subject to a possible suit."

Interlibrary loan service is costly and the price will go even higher with today's inflation, but let us not add even more to the cost factor.

Projections of Request Volume

Another major issue we must face concerns the future expected volumes of this service. As Palmour says "...the existing system, which was adequate for earlier days and smaller needs, is in jeopardy." His, and others' apprehensions are based on the very real possibility that future demand on the service will outstrip the built-in capacities.

It is therefore essential that we examine critically the projections of request volume, and particularly, the various assumptions used in the preparation of such forecasts. Palmour's projections assume a constant growth rate in interlibrary loan activity and are therefore straight-line extrapolations. Even then he is alarmed at the possible outcome. However, before we estimate the volume we should think of a variety of factors that can influence the growth rate.

There are two obvious categories of such factors; those that accelerate the growth and those that decelerate it. There are, of course, also obvious factors that behave in an unpredictable manner.

One of the factors in the decelerating category is the imposition of service charges on the borrower, especially charges for photocopies of periodical articles. This is certain to bring the request volume down at first, but its long-term effect is unclear. Another important factor in this category is the restrictions on lending policy placed by large libraries. This is because large libraries lend much more than they borrow.

On the other side, the accelerating category has one outstanding representative that may well prove to be the most decisive factor of all. This is the computer-automated request. A rapidly growing number of research organizations are acquiring computerized information retrieval facilities. At the present time the preparation of computer-oriented requests for interlibrary loans is small but growing at a rapid pace. One can easily imagine how such a system may develop in the near future. Improved retrieval techniques will enable the scientist to exploit thoroughly the capability of the data base of his own facility. But he will no longer be limited to that. The development of a time-sharing network of computer systems linking many data bases will throw the entire national information resource open to the individual researcher. The resulting interlibrary loan request volume may surpass any expectation. However, the automated system does more than originate lists of items for loan requests. It is also capable of preparing a significant portion of the paper work involved in such requests. It eliminates much of the work that often causes backlogs in the borrowing library. This will further lend to increase the request volume. The combined effect of better access to the national data base and more efficient requesting procedures may well produce request volume growth rates that will be closer to non-linear than to the straight-line projections considered at this time.

Ongoing Efforts in Resolving Interlibrary Loan Problems

We have talked long enough about the problems. Now let us look at the positive side.

1. The Federal Library Committee Task Force on Interlibrary Loan, under the chairmanship of Mrs. Tate, has implemented the "On-site Interlibrary Borrowing Among Federal Libraries in the Washington Metropolitan Area." At present this program is open only to organized Federal libraries in the area.

2. Another step forward taken by the Task Force is the publication of the directory on Federal Library Resources: A User's Guide to Research Collections (1973, price $10.00, available from Science Associates, International Inc., 23 East 26 Street, New York, N. Y. 10010). This publication and other activities of the Task Force have been aimed at extending the use of research material whenever possible and liberalizing interlibrary loan.

3. The Task Force on interlibrary loan agreed that the chairman in consultation with the Executive Secretary of FLC should prepare and send letters to the library directors at George Washington University; Department of Health, Education & Welfare; and the Department of the Interior, asking for reconsideration of the curtailment of interlibrary loan services. It is essential that FLC go on record as opposed to the principle of curtailment (charges).

4. American Library Association has gone on record as opposed to charges in interlibrary loan (cf. Resolution of RASD Board in RQ, V. 12, no. 2 (Spring 1973) p. 21).

5. We must give credit to Leslie Dunlap for his report, entitled "National Regional Lending Libraries". He recognizes the fact that interlibrary loan problems cannot be resolved under the present mode of operations, and must be dealt with on a national basis. The creation of regional lending centers and a backup national lending library could be important in solving our problems.

His report has been instrumental in the National Commission on Libraries and Information Science contracting the Association of Research Libraries to make further investigations. The first report on this subject "A Feasibility Study of Centralized and Regionalized Interlibrary Loan Centers" was prepared by Rollan E. Stevens. He summarizes that two major problems of the present system are (1) the unequal distribution of lending, with a few of the largest libraries handling a large portion of the requests, and (2) the difficulty of filling requests which are incomplete, incorrect, or inadequately checked. I could not agree with him more on his recommendations, starting with a national interlibrary loan system with strong central planning but a decentralized service program, establishing bibliographic centers, resource centers and backup libraries, and concluding with the notion that the support required for development costs, annual grants, compensation fees, etc. is the responsibility of the federal government since the service being provided is a national one.

The Transfer of Information Resources in Federal Libraries - A Survey of Current Practices and an Analysis of Possible Options, compiled by a Committee of Library Science students at the Catholic University of America, Washington, D.C., Patricia W. Berger, Chairman. Ms. Berger is Head of the General Reference Branch, Patent Office Scientific Library.

(Presented by Peter Sofchak)

Abstract: Today's Federal environment is characterized by agency reorganization and disestablishment. Overnight, entire functions and staffs are realigned, recast and reassembled into new organizational packages. Change is the order of the day, and as Federal missions and programs shift, agency and contractor libraries alike must revise and redirect their efforts, if they are to survive rapid transition in order to provide meaningful service to new organizations. At the request of Frank Kurt Cylke, formerly Executive Secretary of the Federal Library Committee, a Committee of Library Science students surveyed how some Federal librarians respond when required to accommodate to radical realignment within the parent organization. Next, the Committee formulated tentative guidelines, designed to set before the Federal library manager the options and alternatives which can be considered when and if valuable information resources seem in danger of thoughtless or needless destruction.

When the September, 1973, issue of the Federal Library Committee's *News Letter* hits the streets, a copy of a pamphlet, bearing the ominous title, *Guidelines for Library Disestablishment*, will accompany it.[1] *Guidelines* may very well be filed away unread - no one likes to dwell on life's grimmer possibilities. It was not written to soothe, rather, it was prepared in response to a very urgent need enunciated by Kurt Cylke, formerly Executive Secretary of the Federal Library Committee.

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[1] *Guidelines for Library Disestablishment*, compiled by P. W. Berger, C. S. Braun, J. DeToro, M. E. Gehringer, M. McGlannan, D. A. Pisano, A. R. Robinson, J. L. A. Schulman and P. Schofield, Washington, U.S. Federal Library Committee, 1973.

On the 26th of February, 1973, Mr. Cylke described to a class of Library Science students at the Catholic University of America in Washington, D.C., the chaos in the Federal community resulting from its attempts to respond to mandates which required scrapping of major programs and the dissolution of whole organizations.

Vitally affected by these abrupt actions and needing help quickly, were the agency librarians, he said. Entire library systems were being [illegible], with little regard or consideration either to the new information needs created by multiple reorganizations, or to the transfer of stabilized missions to new establishments. Mr. Cylke told us that most commonly, librarians and agency administrators approached the matter of library curtailment as if the problem were entirely new to Federal agencies. The resulting impromptu decisions were more often than not disastrous. If there were established and permissible ways for information arrays and services to be preserved, they were not widely known or understood. He asked our help to develop transfer and dislocation guidelines for Federal libraries as quickly as possible. Nine students volunteered to try, and I agreed to serve as committee chairman. We began work in early March, 1973, and our goal was to submit a draft to the Federal Library Committee in early May. We met our deadline.

As a first step, we searched the United States Code and the Code of Federal Regulations to determine the legal restraints and options open to Federal librarians. Next, we contacted the administrative librarians of the Army, Navy, and Air Force. These are the people responsible for the library programs of the three Services. An important and unique part of their jobs is to develop procedures to provide for the orderly establishment, transfer and disestablishment of library collections and services world-wide - whenever and wherever they are needed. A similar requirement is levied on the libraries of the United States Information Agency.

All of the people we contacted in these agencies were most helpful - they provided us important materials for review, and freely gave us their time for prolonged telephone consultations and discussions. I commend to your attention the materials we included from these agencies in our appendix to Guidelines. These items were written by the Federal experts - library managers who accept radical shifts in political emphasis and economic favor as a matter of course and set up their operations to accommodate and allow for such occurrences.

Our next operation involved interviews by telephone with 63 Federal library managers in the Washington, D.C., metropolitan area. We devised a brief questionnaire we hoped would give us information on:

- The relative permanence of the parent organization, which, in turn, reflects the permanence or impermanence of the library.
- The history of "mission shifts" within the organization. That is, within memory, have major functions been transferred into or out of the organization? If so, what were the effects of these changes on the agency library or information center?
- The history of the founding of the library; was it established by statute, administrative regulation, or some other device?
- Library programs for the exchange, transfer or donation of all or part of the collection. Similar programs for library equipment. How were these programs developed and for what purposes? How are they implemented at present?

Here, I wish to pause in this narrative and offer the Committee's collective "Thanks" to all the Federal librarians who took part in our survey. Often, our questions meant the interviewee had to dig for the historical information we requested. Happily, busy library managers were willing to take the time necessary to oblige - even though our survey questions were disquieting, to say the least.

Except for Congress, the Federal Courts, and the Office of the Presidency, today, it is difficult to select a single Government office or Federal organization likely to remain unchanged, let alone unmoved, for, say, the next 3 to 5 years.

Into this quicksand environment comes the Committee with its questionnaire, needing answers to such items as:

> "Is the library considered to be permanent or temporary? If you were told to disband, in general, how would you proceed? Could you easily and efficiently divide your collection, equipment and staff among outside organizations tasked to continue many of the operations of your agency?

Often, librarians being interviewed responded with a set of questions of their own:

> "Who wants to know?"
>
> "What have you heard?"
>
> "You're doing _what_ for _whom_?"

And it was cold comfort for us to indicate that the Federal Library Committee sent us!

Again, our sincerest thanks to the Federal librarians who took part in our survey and furnished us the information we sought - even when it seemed we were apt to give more aid and comfort to the enemy than to suffering librarians!

In mid-March, the Committee divided itself into three working and writing groups. Group 1 undertook to prepare guidelines on book materials; Group 2 began work on guidelines for non-book materials, and Group 3 prepared guidelines on aiding dislocated library personnel.

We used the results of the survey, reviewed the documents, reports and narratives we had collected, and "fleshed out" all of this with reviews of administrative regulations and still more consultations and interviews with Government and non-Government personnel. For example, we consulted people in the Civil Service

Commission, the National Archives and Records Service, the Exchange and Gifts Division of the Library of Congress, the General Services Administration, and the United States Book Exchange. In late March, we were ready to prepare a first draft of Guidelines.

Everything we had heard and learned so far indicated that the most common library disposal practice today involves the shipment of both excess and surplus volumes to a library exchange. Sometimes an entire library collection is released in this fashion. Likewise, most frequently, library equipment is released piecemeal to a GSA property officer, and becomes part of a "general office furniture pool" against which interested Federal agencies may draw to satisfy their equipment requirements. These practices reduce a library - an organized body of material, carefully classified and expensively housed - to an accumulation of unrelated, unshelved individual volumes. There are other ways to proceed.

- We suggest that you review the regulations that bind you and then consider whether:
- An agency with a mission similar to the one being abolished may be established shortly. For example, the establishment of a permanent commission upon the expiration of a temporary board or panel. In this case, perhaps present information services should be continued at least until the permanent body is established and can review its own requirements.
- Agency functions are being truly abolished or just transferred.
- If transfer is the case, can provision be made for appropriate elements of the library to move with the functions?
- We further suggest you determine whether all library services are to stop simultaneously or are to be phased out. This scenario will, of course, determine how many of your staff you will try to keep and for how long.

- You need to know whether you have enough money to wind down according to the agency schedule. It may be necessary to prepare a special budget for this purpose, especially if disestablishment will proceed over some time.

- Collections and library equipment alike

    - can be transferred in whole or in part to needful Federal agencies, or reassigned within an agency as appropriate;

    - can be released on indefinite loan, transferred or donated to appropriate elements of state or local governments;

    - can be given to educational institutions, Government contractors, and/or the public library of the District of Columbia;

    - can, in certain instances, be sold to Federal employees;

    - can, in some circumstances, be released to foreign governments, foreign libraries and/or foreign educational institutions.

The library manager should consider all of these options carefully before resorting to the release of material and equipment willy-nilly to a Federal or non-Federal "exchange".

Copies of publications or reports prepared for or generated by the disestablished agency are frequently in short supply. Therefore, a final distribution of copies should undertake to assure maximum availability and retrievability of the material for future research and study. The agency librarian is often the best qualified professional to review this material and to implement deposition of archival copies to the appropriate Federal and educational depositories. But remember, the law provides that 150 copies of all publications "suitable for international exchange purposes" will be donated to the Library of Congress.

Agency archives can be tricky. For example, if a library collection includes extensive materials on the history of the agency or on Federal programs, the National Archives and Records Service may consider the library's shelflist of considerable archival value.

I ask each of you, please, please if you ignore all the rest of Guidelines, do read the audio-visual and computer software paragraphs in the archives section. Presently, only the National Archives and Records Service is prepared to arrange for reissue of AV and software materials to other Federal libraries. This is handled through arrangements and interchange among the Audio-Visual Archives Division (Machine Readable Archives Branch), the National Audio-Visual Center in Suitland, Md., and the National Technical Information Service in Springfield, Va. The above elements of NARS, working with NTIS, will handle all A-V and software items - even if they are not truly archival. This unique service is important to remember - if your data or software tapes are sent to any other element of the General Services Administration, they are apt to be degaussed and reissued once they are "clean" again!

How to help a library staff lacking future jobs ain't easy. As you might expect, the Committee did not discover magical methods for providing new jobs for riffed Government personnel - library or otherwise. But we tried to suggest alternatives to hitting the panic button. For example:

> Given your disestablishment scenario, which employees do you wish to keep? What is the probability of retaining the employees you need? (Again, a solid operating budget is all important, especially if you need to provide for retention of employees with special skills.)
>
> If certain functions are to be transferred, recommend and insist that certain of the library staff accompany

> the function. The Civil Service Commission will back you here - their riffing procedures specifically provide for movement of personnel with function.

In our Appendix we summarize for you Civil Service Commission's riffing procedures for all Federal employees, spelling out in a fair amount of detail rehire rights. We also searched for information on where to look for library jobs outside the Government. Happily, we were the beneficiaries of a monumental windfall, when Margaret Myers' first-rate article, "Emergency First Aid: A Guide for Library Job Hunters", appeared in the April, 1973, issue of the Wilson Library Bulletin. H.W. Wilson gave us permission to quote from it - and we did, in the Appendix to Guidelines, liberally.

Ms. Myers worried about today's library school graduate, but we were worried about all Federal library personnel. In addition to librarians, we felt we needed to consider library technicians, library clerks, SDI specialists, translators, systems analysts and other specialized personnel. Therefore, we identified additional sources of information for job hunters and added them to Ms. Myers' listings. We hope the sum of this combined effort will alleviate some of the agony of job relocation.

If it appears that personnel relocation will plague you in the months ahead, we suggest you watch the activities of the Senate Committe on the Post Office and Civil Service. Senator Jennings Randolph, Chairman of that Committee, has asked the Chairman of the Civil Service Commission to come up with a program to yield specific, in-depth aid and relocation help to riffed Federal employees. At the moment, the dialog continues but when and if a new program is developed and implemented, it could have multiple effects on the movement of personnel in the Federal library community.

I've mentioned the Appendix to Guidelines several times earlier. In addition to the elements already discussed, this Appendix includes summaries of those sections of the United States Code and the Code of Federal Regulations we felt would be significant in a phase down/phase out environment. We also extracted much material from a particularly significant document, prepared in 1965, by Ms. Louise Nyce, a supervisory Army librarian.[2] What Ms. Nyce has to say is useful and very basic, whether you are moving your library across the hall or out of the Federal sector. For example, she furnished factors for the length of time it takes two men to build 250 packing boxes, and the number and kinds of people you need to strip a card catalog.

That's it. [illegible] hope you'll never need Guidelines - but if you do, we tried to make it useful.

Last one out the door, turn off the xerox.

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[2] L. Nyce, "Procedural Guide for Deactivation of Libraries" (unpublished document, Paris, 1965.)

Basic and New Legal Materials in Legal Research

Dr. Draha M. Bil
Regional Librarian
U.S. Department of Housing and
Urban Development

A. There are three categories of Basic Legal Materials:

- I. Legislative
- II. Judicial
- III. Administrative

I. To the first group belongs the (1) Federal and (2) State Legislation.

(1) The Federal Legislation includes chiefly:

- a. The U.S. Statutes at Large
- b. The U.S. Code (USC)
- c. The U.S. Code Annotated (USCA) and a parallel publication
- d. The U.S. Code Service (USCS) "Lawyers Edition" which is a successor set to the Federal Code Annotated (FCA)

Although the U.S. Statutes at Large is legal authority and the U.S. Code is the official edition of laws, the most practical and most consulted publication in this category is the U.S. Code Annotated or the U.S. Code Service. Both are arranged by subjects and have similar indices and similar tables to those in the U.S. Code, but carry additional features not to be found in the U.S. Code. They have extensive and important annotations citing related cases, court decisions, historical notes leading to prior provisions and legislative history, and include additional entries. The Popular Name [illegible]ble facilitates the search for laws known under the names to the public while the conversion Tables translate public laws or executive orders citations into the U.S. Code Annotated citations. Both sets are supplemented by occasional pamphlets of laws and by yearly pocket parts.

The U.S. Code Annotated is, in addition, supplemented by the U.S. Code Congressional and Administrative News, which is published monthy in pamphlet form and is cumulated in annual bound volumes.

II. Judicial Legal Materials

The best known system covering decisions of federal courts and appellate courts of the states is the National Reporter System.

The Reporters include geographical areas as well as special subjects or special types of courts and usually have quite explicit titles: such as Atlantic Reporter, Pacific Reporter, Federal Rules Decisions, Supreme Court Reporter, Federal Reporter, etc. However, for New York state courts there is the New York Supplement.

Each Reporter indicates on the title page the courts quoted and has also list of cases reported. But there is no cumulative index, except for Federal Rules Decisions.

It is, therefore, imperative to have in the library corresponding Digests. For Atlantic Reporter there is Atlantic Reporter Digest and Atlantic Digest 2nd. For the Supreme Court Reporter there is Supreme Court Digest. For cases published in Federal Reporter and Federal Supplement there is Federal Digest with cases up to 1938 and the Modern Federal Practice Digest since then.

The Digests contain Tables of Cases, Plaintiff and Defendant Tables, and other indices, all extremely helpful in legal research when only fragmentary information is available.

Classical in this group is American Digest System, which combines Century Digest with seven editions of Decennial Digests and General Digest. This is a giant collection of judicial decisions which is mostly found in the courts libraries.

Selective law reports are published in American Law Reports (A.L.R.). Cases are selected on the basis of importance to the legal profession, rather than as leading cases. It is a very large set of legal books already in its third series. It has excellent annotations and, therefore, much in demand by researchers.

Within this category the Shepard's Citations should be mentioned.

These are special publications which provide the lawyer with latest information on his cases as well as on connected and parallel cases.

Each unit of National Reporter System is covered by it pertaining Shepard: e.g., Atlantic Reporter has its Shepard's Atlantic Reporter Citations, and so on.

Reporters, Digests, and Citators are currently supplemented by pamphlets or pocket parts to keep the material up-to-date.

It prints public laws verbatim, their legislative history, executive orders, proclamations, presidential messages, and other information.

Also, the U.S. Code Service "Lawyers Edition" is similary supplemented by the monthly "Advance" Service pamphlets.

The U.S. Code Annotated and the U.S. Code Congressional and Administrative News or for that matter the U.S. Code Service "Lawyers Edition" with its "Advance" service are publications which should be in every legal library be it ever so small.

Here should also be mentioned congressional documents such as congressional hearings, committee prints, reports, all of which are usually available from the Legislative Reference Services within each federal agency.

There are two additional publications closely related to the congressional legal activities: The Congressional Record and the CCH Congressional Index.

The Congressional Record illustrates all events taking place on the floor of the Congress: Congress debates, introduction of bills; all speeches, presidential messages, etc. Each issue of this publication has a Daily Digest for quick reference on daily programs and the first issue of each month has a Resume of Congressional Activity.

The Commerce Clearing House Congressional Index is a loose-leaf service. It is a weekly record of congressional activity, giving current status of bills in committees, voting records, and biographical information about each member of the Congress.

2. The State Legislative Material is represented by state statutes and the related session laws. In this context it is important to know that almost every state publishes its session laws under different titles as Acts and Resolves, Public Laws, Acts and Joint Resolutions, or simply laws.

In some states there are publications similar to that of the CCH Congressional Index. For instance, in New York there is the New York Legislative Record and Index.

Also, Commerce Clearing House is publishing its loose-leaf legislative services for all states.

It is of utmost importance in legal research to consult not only the main books, but all additional issuances and pocket parts as well.

III. The Administrative Legal Material is carried in:

a. Federal Register and

b. Code of Federal Regulations

a. Federal Register is actually a supplement to the Code of Federal Regulations and covers presidential documents, executive orders, proclamations, administrative rules and regulations, etc. It has sections on proposed rules, notices of meetings, administrative public hearings and statements. It is well indexed by subjects and by Lists of Code of Federal Regulations Section Affected published monthly, quarterly, and yearly. The Lists have parallel tables leading from the USC citations to that of the CFR sections and Federal Register pages to the Federal Register issue dates.

b. Code of Federal Regulations is codification of general and permanent rules published in the Federal Register by the executive departments and federal government agencies. In addition to the general index, it has compilations of and consolidated tables to the presidential documents.

Since only enacted administrative legislation is printed in the Code of Federal Regulations and other items from the Federal Register are not or only references are included, it is advisable to keep the Federal Register in the Library and not to discard it. Among topics which are omitted in the code are many miscellaneous rules, delegation of authority, proposed regulations, etc.

It is also wise to keep old editions of the Code of Federal Regulations because the provisions, which became obsolete, are not carried in the new editions.

B. New Legal Materials

As far as New Legal Materials is concerned the loose-leaf services are the most important tools in a research library. They collect and explain all the law on a single topic, supplementing it as often as once a week.

For an effective legal research these publications are indispensible. So far they are published by:

a. Commerce Clearing House (CCH), publishers of topical law reports, in Chicago;

b. the Bureau of National Affairs (BNA) in Washington, D.C., and;

c. Prentice Hall (P.H.) in Englewood Cliffs, New Jersey.

Some of the latter titles added to this group are:

1. *The BNA Environment Reporter*, a rather large set of binders with the latest reports on all aspects of environment such as: clean air, coastal waters, pesticides, food processing, refuse, nuclear power plants, transportation, wilderness, sewage, etc.
2. *The BNA Housing and Development Reporter* recently published, which complements the *CCH Urban Affairs Reporter* and bring some new features into the field of housing;
3. *The Federal Aids in Financing*, published by Prentice Hall, with information on different kinds of loan and mortgage insurances;
4. *The CCH Proverty Law Reporter*, a very valuable set of reports on law and its impact on the poor;
5. *The CCH Energy Management*, a brand new publication which provides timely information on the many aspects of the "energy crisis."

In closing my presentation I hope that I was able in this short period of time to give you all substantial information on basic as well as new legal materials.

The Federal Librarians Association by Dr. Stanley J. Bougas, Director, Department of Commerce Library.

Abstract: The Federal Librarians Association is incorporated under the laws of the District of Columbia as a non-profit association to provide librarians in the Federal Government with a service organization to assist them in their professional development. All persons holding a professional library position in the Federal Service or former federal librarians, or retired from the same, and interested in the advancement of the goals and purposes of Federal Libraries, are invited to join the Association.

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THE OBJECTIVES OF FLA ARE

To provide members with a variety of communication channels within and outside the library profession, including meetings and publications;

To provide members with a professional association to help them in their development and advancement;

To increase the usefulness and advance the standards, ideals, and welfare of the library profession.

Some of you will say why do we need another association? There is ALA, SLA, ASIS, regional state and local chapters. We have enough library oriented organizations to join and in which to participate. The thing is that you don't you haven't and unless something new and invigorating comes along you won't! Yet you want to belong. It was evidenced by FLIRT and more vigorously in FLA. And not by "headquarters" librarians meaning Washington, D.C. Most of the membership is from the field, from overseas.

Well I have mentioned what FLA would like to do now let me give you a bit of what has been done to date. FLA was the idea first of John Sherrod, then the Director of the National Agricultural Library, Frank Kurt Cylke, the then Executive Secretary of the Federal Library Committee, and Cathryn Lyons the Librarian at the U. S. Naval Weapons Laboratory Technical Library at Dahlgren, Virginia.

There were a couple of meetings in 1971-72 just to see if anyone was interested. Response was to say the least negative; but these people gave it a great bit "What the hell! Go for broke!" and decide to go all the way. First incorporation, charter, bylaws, the whole bit. Word started getting around after the first mail-out but more surprising -- memberships started rolling-in! Our good Federal librarians sending in checks! And as I have mentioned mostly from the field and overseas. Those to whom we have talked said it was about time -- you are trying to reach us -- communicate with us. Maybe we are not the wandering limbo types we thought.

When in May of 1973 the first "Planning Meeting" was officially called it was to organize pro tem board of directors and committees. We almost gave up -- only about 20 people (who were almost all locals) showed up. Needless to say almost all volunteered for posts on the Board, Committee chairs and membership. That was in May. Since then we have had nine or ten Board meetings including the committees; organized the First Annual Meeting held September 9, 1973, in Alexandria, Virginia (the day before the 17 Annual Military Librarians Workshop -- which was good timing). There were 150 Federal librarians present. (The Military had over 200). Our speaker was Mr. Wellington H. Lewis, Assistant Public Printer and Superintendent of Documents who did an excellent job of bringing GPO to us -- and fielding an hour's worth of questions with coolness and aplomb. If you have anything to do with GPO you know that may not be an easy task for someone trying to sell you a GPO program! The First Annual Meeting was an unequalified success. Being somewhat young we figure on not venturing too far afield until our Third Annual but after that watch out. Start planning to attend -- put it in your budgets. Those of you who plan to be at the Washington Third Annual Interagency better join FLA now to save space -- get your tickets early.

But what else did we do? Well, ask your Planning Committee what it takes to get a show off the ground. Meetings, discussions, letter writing by the pound, cajoling, and swearing to name some of the trials. In the meantime we put out a membership directory, got out our first newletter, established a checking account with more than $2,000 in it, and constantly seek out new members. We are considering chapters out in the Far East, West, Europe, even Denver!

The amazing feature is that suddenly we are feeling spirited, marsh is growing, as is the membership (175), people are chafing at the bit to start doing things get really going.

One item -- we joined the ALA in its proposal concerning copyright at the recent hearings before the subcommittee of the Senate Judiciary. The recommendations support the primary purpose of copyright legislation, i.e., "to promote the progress of science and the useful Arts", and protecting the librarian from undue and unjust liability, thereby advancing the public interest and to satisfy the national need for education and information.

So from May to September we sprang from the eggshell to fledgling-hood-just stretching our wings -- we will call on you -- we need you -- you need us. It is time Federal librarians stood up and were counted. There are obstacles and I know them all: budgets, travel, time, training but that is what makes a profession, that is what makes specialists and we are specialists.

FLA has been born to serve the Federal Librarian in innumerable ways, ways that will hopefully assist in serving each Federal librarians' department and agency, its public and its mission.

"ADP on the Cheap - Why It's Not" *

by

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Within the Agricultural Research Service, which is the largest research agency within the Department of Agriculture, we have two different types of computer-based bibliographic information service programs available. One is a massive selective dissemination of information program -- referred to as the Current Awareness Literature Search Service. The other is a series of individual programs tailored to meet the specific needs of a given user or library. Neither program is particularly cheap -- but each reflects a completely opposite approach to computerized information handling. And, perhaps, one of the approaches may have relevance to your needs.

Before one enters into any data processing activity, he must obtain a complete and up-to-date picture of the environment in which it will take place: the user's needs, the available financial resources, the available equipment, and the available personnel. Without this information, successful planning, development and implementation of any system will almost always fail. Even with it, systems have been known to fail.

From prior experience, we knew there were a number of ARS individuals and libraries with a need to manage various kinds of bibliographic files. While the characteristics and use to be made of the files varied considerably, two of the characteristics of the users were identical: extremely limited data preparation facilities and extremely limited funds. Therefore, we wanted a program or system of programs which could take input from various sources, such as IBM cards, card image tapes, MT/ST tapes, etc. Additionally, the programs had to allow for user variability and be inexpensive to use.

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*Paper to be presented to The Federal Library Workshop, September 24-28, 1973, Denver, Colorado.

Such a system had been developed several years before by the Forest Service, and had subsequently been modified by the University of California at Los Angeles, the University of Wisconsin, and several others. We selected two versions and made them operational on two different lines of computers -- one in-house and one at another government agency accessible by teletype from our location.

Data were prepared in the field according to a user-defined structure and sent to our office for input to the computers. Standard processing procedures were developed for each user or user group. For example, we routinely receive MT/ST data from our avian tumor research project in Michigan. The data are used to update their master tape, the tape is sorted and printed by author, category, and accession number and the print-outs are returned to the project. That same MT/ST tape, before it is sent to us, is run-off on multilith plates to produce the library's monthly accessions list which is distributed across the country to interested researchers. Thus, the one-time data preparation results in a variety of products thanks to the MT/ST and the computer. When the MT/ST is not being used to prepare library data, it can function as a standard typewriter or a more sophisticated text editor.

This approach to handling individual needs is obviously limited by the capabilities of the computer programs used. However, we can at least offer the wary user an affordable entry to the computer world via a route which can lead to more sophisticated activity should he feel a need for it.

Scale of operation is one of the major differences on the other side of our computer-based bibliographic services. Our SDI program, which involves current and retrospective searching of Chemical Abstracts, Biological Abstracts, Engineering Index, and the CAIN tapes with three additional data bases planned for inclusion in the near future, was preceded by a pilot program involving the Chemical Titles. To anyone familiar with Chemical Titles it would not seem the likeliest candidate to offer to an agriculturally oriented audience. We chose it for several reasons -- we do have a large number of chemists and biochemists who were using it in hard copy form, the tapes were relatively inexpensive to lease, software to search them was available from the Chemical Abstracts Service, and the format of the tapes is simple enough that we felt we could teach users to write their own profiles.

That last point was crucial to us -- our entire approach was based on teaching the individual to write and revise his own profiles. The economics of providing intermediary search profile writers for an audience as large as ours -- 3500+ scientists in ARS alone and the service is made available to anyone in USDA -- would have been beyond our reach. After one and one-half years of working with the Chem Titles tapes, learning the rudiments of how to educate users, and -- most importantly -- finding a tremendous amount of user enthusiasm and willingness to learn how to use the system we decided to expand.

We selected the previously named four data bases because we felt they gave us the broadest coverage of the literature of interest to a majority of our users. We evaluated existing computer search programs to see if there was one which we could purchase rather than spending the necessary time and manpower to develop our own. There were, at that time, about six different systems available and our choice was finally made on the basis of machine space and execution time requirements since these were our major constraints. The system selected runs on an IBM 360/50 or larger and will operate in 130K.

In addition to the expense of the citation tapes, two other major expenses had to be considered: the machine time to convert, search, and print the output and the travel budget required to go to the users and teach them how to use the system. Our rule of thumb was that any location within ARS with 15 or more scientists could request a training seminar. More than 60 such locations across the country were identified, varying in size from regional labs with 200 or more scientists to field locations which combined to produce a group of 15.

Beginning in May of 1972, we have visited nearly all locations and the SDI system now serves nearly a thousand users with 6,000 profiles. Retrospective searching is done on a demand basis -- usually every two weeks if the demand volume is great enough. The entire system is handled by three individuals -- a technician who handles the keypunch contracts, in-house keypunching and actual setting up of the jobs; a part-time programmer-analyst who handles necessary program revisions and extensions as when a new data base is added; and an information specialist who handles user training including user seminars, development and revisions of the Users' Guide which contains all the information necessary to write a search profile, and she also evaluates new data bases for potential acquisition and overall system performance.

Because the system is run with minimum overhead and staffing, we estimate that it costs us forty percent of what the same coverage would cost commercially. Relatively speaking, it's ADP on the cheap.

AUTOMATION IN THE NATIONAL AGRICULTURAL LIBRARY

Joseph F. Caponio
Acting Director
National Agricultural Library

(Paper presented by Vern J. Van Dyke)

INTRODUCTION

The National Agricultural Library together with the National Library of Medicine and the Library of Congress, is a component in the National Libraries complex for the United States. In this capacity NAL is responsible for the collection and dissemination of information on agriculture and its related science on a national and world-wide basis. The NAL collection is one of the largest in this subject field in the world.

In a space of about four years NAL has advanced from a basically manual operation to major computer assistance in many phases of operations and even to on-line searching of its CAIN data base. CAIN, with its broad base of bibliographic data was the first major step in automation.

MAJOR ACCOMPLISHMENTS

The name comes from the first letters of the words Cataloging and Indexing. CAIN is a versatile and complex multi-user bibliographic system. It operates in batch mode using magnetic tape storage and can serve up to 5 users simultaneously from the same input. Examples of users are Cataloging, Indexing and Reference. All users must use the same rules: Use the same controlled vocabulary, or no vocabulary at all.

CAIN consists of 4 primary sub-systems. The UPDATE AND EDIT sub-system has rigorous edits both on individual data elements and on the record as a whole. If a journal article record is found to be error-free, CAIN gives the user two additional updating cycles to change it before approving it for publication on the sale tape. This is not true of monographs or new serials. Approval records for monographs or new serials must be inputed into the system.

The CONTROLLED THESAURUS sub-system accommodates hierarchical subject terms, journal title abbreviations which are automatically pulled through their call numbers, and some corporate authority entries which are also pulled through the call numbers.

The PUBLICATIONS sub-system has multi-media output and will be discussed under CAIN forms of publication.

The fourth sub-system, SEARCH is discussed under CAIN tape.

CAIN Input

CAIN will accept its input from 80-column punched cards, card-image records on tape, on ANS tape records using MARC tags. We had hoped by this time to have our input going in through CRT's. Since its inception CAIN has achieved a number of milestones.

FORMS OF PUBLICATION

It has many types of output. For example, book catalogs and/or bibliographies are produced in upper and lower case either through line printers or LINOTRON. Catalog cards are automatically produced for any or all of up to 21 different card files through examination of characteristics of each monograph or serial record, including all cross references and added entries. These cards are computer sorted by file, and alphabetically within each file.

Journal Titles are listed in abbreviated form in two reports. One listing is in title order, and the other in its associated call number order.

New Book Listings are not presently being produced. The system, however, has the capability of selecting new books added to the collection and printing an announcement listing.

The thesaurus is another system capability not presently being used by NAL. This publication is a hierarchical listing of terms plus their broader, related, use, use for, as well as narrower terms. The narrower terms are reported down to 10 successively narrower levels.

CAIN tape

Once a month, items approved for publication during that month are copied on to tapes for sale to subscribers. One of our subscribers is the MacMillan Information Corporation, who uses it to publish the Bibliography of Agriculture. The tape is also sold to other subscribers in the United States, Canada, and various European countries.

Most of these subscribers use the tape for searching. CAIN itself, has two types of built-in searching: one is a full boolean weighted search on any combination of data elements. This is expensive and seldom used. The second is a text searching capability. I must emphasize that the CAIN search modules are used only for internal NAL use. NAL does not directly perform searches for patrons. However, the Library does have on-line search capability through Lockheed Missiles Research Corporation.

Other searches such as current awareness profiles and retrospective searching are available in this country through the University of Florida or the University of Georgia. U.S. Department of Agriculture employees are provided this service by the Agricultural Research Service. The Canadian National Science Library provides it for Canadian nationals, and there are also European Centers.

Our newest search capability is an on-line service contracted through Lockheed Missile Research Corporation. Systems Development Corporation also offers this service, but not on contract with NAL.

Other Atrributes

CAIN is more than just a method of throughput to provide publications. It provides many other valuable services. Some of these include:

> Management assistance such as editing, error reporting, warnings, automatic approvals to reduce approvals to reduce input, statistics, proof lists for review purposes, duplication checking of journal articles within a 6 month span of operation.

Parallel Users

In addition to the NAL data bases on CAIN, there are other organizations which use this computer system for their own data bases in parallel run mode. Some of these are shown on this slide. In addition, we presently have two more USDA data bases under study for possible conversion to CAIN. A third data base may possibly be Economic Research Service.

STAR

A new automated system is STAR (standing for Serial Titles, Automated Records) is still under development. It is our base for a complete serials handling system. The system is designed to provide desk top tools at all in-house serial work stations, to provide the user with lists in a variety of formats and sequences, and to provide data about new serials to the National Serials Data Program.

STAR is presently in batch mode, but the files are being converted from tape to disk. This data base will have the capability of going on-line.

Current modules include maintenance of the master data base; check-in records for each copy, by year; vendor authority files (over 20,000); author authority files (Slide 13) (corporate entry and personal); and an automatic renewal function. These modules can be linked both to CAIN and STAR.

Current output includes 15 different STAR reports, including cross references; KWOC lists of titles; vendor authority file lists by either vendor code or name; author files; prooflists; edit reports. Anticipated benefits include interfacing to MARC-based generalized print programs; faster and more accurate processing of data; and interface of authority files to all data bases.

PLANS FOR THE FUTURE

We have big plans for the future. No time table has been developed. This will depend on our resources.

One of our plans is to tie into the Ohio College Library Center System. Hopefully, this will reduce our original cataloging load, facilitate inter-library loans, expedite selections, and enable us to capture cataloging in MARC format. In this way, we will be able to tie back to our CAIN system which provides so many desirable end products.

Another plan is to see the full development of the Agricultural Sciences Information Network, linking land grant colleges to NAL.

Still another is to capture the benefits evolving from the international AGRIS system.

Last, but far from least, we hope for fully automated on-line library systems into which networks can be participating members.

CONCLUSION

We have gone far in five years. We still have far to go. It is a challenge which we have accepted with pleasure. In sharing plans and products we can all go a little faster together.

The Making of a Common Services Library

Leocadia S. Codispoti, Librarian
General Services Administration

Abstract

The Regional Council Library functions as a part of Common Services by providing centralized library facilities for the five member agencies of the Northwest Federal Regional Council: Department of Health, Education, and Welfare, Department of Housing and Urban Development, Department of Labor, Office of Economic Opportunity, and Department of Transportation. The procedures for the planning and development of this pilot project, from its inception to its becoming a working entity, will be presented. Topics to be included are equipment, resources, and services.

A new and innovative concept--new and innovative to the Federal Library Community, that is--was initiated in February 1971, by a combined effort of the Federal Regional Council and the General Services Administration of Region X, Seattle. In an interagency agreement, a library was defined as one of the centralized services to be provided for five agencies and to be administered by GSA. A "common services" library--one library servicing five separate federal agencies instead of five separate libraries! A simple conclusion of common sense, and yet, one wonders why it has not happened sooner.

It's what's happening in Seattle. What makes it feasible? Essentially three ingredients:

1) Location: all five agencies serviced are located in the same building.

2) Common interests: the five agencies: DHEW, HUD, DOL, OEO, and DOT, are all concerned with socio-economic issues, i.e. education, housing, manpower, minorities, etc.

3) Cooperation: the higher echelon of each agency is convinced that a library is essential and that it can effectively provide service as a centralized unit.

The first and second factors listed above are easily evaluated--either they exist or they don't. Cooperation is another matter, and fortunately, through hard work, persistence, and persuasion, most decision-makers in the Federal Regional Council were in agreement. Those who had reservations have slowly become convinced that the concept works as they avail themselves of the services offered. A common services library can only be viable with that vital virtue--cooperation.

The library serves as the Regional Council's focal point for obtaining, disseminating, and controling resource materials. The library does not aim to eliminate all duplication, nor to displace all collections, but prevention of unnecessary duplication makes for better economy and efficiency. To assist and to reinforce the mission of agency personnel is the ultimate imperative.

The procedures for setting up the common services library are basically those for setting up any new library, thus detailed discussion is unnecessary. The physical characteristics considered are space, shelving, furniture, equipment, supplies. Checking the literature on library planning is useful, and visits to libraries in the area are invaluable as you also establish contacts in the local library community at the same time. Nevertheless, there are several areas that require special consideration in planning the common services library.

Determining the resources of the collection is a real challenge, as this library, being the first of its kind, had neither model nor guidelines to follow. The first priority, however, was given by the Regional Council--establish a legal collection for use by the fifteen lawyers in the building. A meeting with exceptionally cooperative attorneys produced a list of basic legal references to be centralized in the library; additional reference sources would be maintained in counsel offices. As previously mentioned, not all duplication is eliminated, especially where time saved and frequency of use are significant. A composite list of all legal materials in counsel offices, with locations, is revised and distributed periodically to each lawyer.

Additional activities to ascertain the needs of the library included distribution of a questionnaire to personnel, attendance at orientation and staff meetings, surveys of materials already available in various offices, discussions with individual employees, and consultation with other federal librarians. As a result, the common services library is a potpourri of public laws, federal regulations, OMB circulars, congressional, federal and state documents, newspapers, periodicals, monographs, telephone directories, environmental impact statements, road maps, planning reports, and legal serials.

Though circulation is restricted to Regional Council employees, the library door is open to all who choose to enter. The Federal Information Center, located in the lobby of the building, often refers citizen inquiries to us, as do the agencies in the Regional Council. We aim to "stop the buck" here insofar as possible. Services include reference and research, compilation of bibliographies, and interlibrary loan. A list of selected additions to the library is distributed every month. A microfiche-microfilm reader-printer is available for general use.

No operation is void of problem areas. Decisions for the acquisition or non-acquisition of a title by an employee sometimes requires a little political acumen. Keeping an account of those publications available in the agency offices is not always easily recorded. And, of course, those familiar questions indigenous to libraries do occur--retrieval of long overdue materials, a backlog of cataloging, retention decisions for serials, etc.

Has the common services library proved to be effective? An evaluation by Washington, D.C. representatives of OMB and GSA recommended its continuation. In addition to vocal compliments, several letters of appreciation from Regional Council users have been addressed to the library. And most importantly, the library does have users. No conceit intended, but we feel confident in stating that the NW Federal Regional Council agencies are that much better for having a centralized library. It is significant to note that we are referred to as the HUD library, or the HEW library, by respective employees. The common services library works for everyone--and everyone feels as though it is his/her library. Charged with providing necessary library services via a centralized facility for the Region X Regional Council, we plead guilty.

International Cooperation

Melvin S. Day
Deputy Director
National Library of Medicine

Abstract

U.S. Federal policy encourages international cooperation in the information area on a "quid-pro-quo basis." Programs of the Library of Congress dealing with exchange, acquisition (PL-480), and shared cataloging are described. The international computerized MEDLINE network of the National Library of Medicine is discussed as an example of a new expanding area of international cooperation.

My topic this morning is "international cooperation" and you can understand that by its very nature it is an extremely broad subject. In keeping with the scope of this session my remarks will be limited to international cooperation as it relates to the federal library community. Even with this restricted definition I will be hard-pressed to cover in any depth in my formal remarks my assigned topic because of the relatively brief time allotted to each speaker. On the other hand I do hope that in the discussion period that follows I will be able to expand those areas of immediate interest to you.

International cooperation has been a way of life for federal libraries since the early days of their establishment. The National Library of Medicine, the library I represent, records some international cooperation activities back in the middle 1800's largely in the acquisition area.

U.S. federal policy generally encourages international cooperation in the information area and more specifically it encourages information exchange on a "quid-pro-quo" basis. The codification of this policy exists in many forms, and more recently the Federal Council for Science and Technology in March 1968 set forth a uniform set of policies covering the exchange of information which I feel best summarizes other federal codes. It states that:

> "Agencies of the U.S. Federal Government shall generally in exchanging information seek a reasonable return which may be in the form of publications, information, materials, services, or money. Agencies of the U.S. Federal Government will generally refrain from widespread free distribution of material, but they shall take into account the capability of the foreign entity concerned to make this return, and are encouraged to supply or

> distribute free materials in support of specific foreign policy objectives, such as assistance to developing countries. They may at their own option, answer requests with free materials, and may utilize selected free distribution as necessary for accomplishment of their statutory missions."

A key phrase which should not be overlooked is "in support of specific foreign policy objectives" and that provision, of course, provides a built-in flexibility which can affect specific arrangements with individual countries at any particular point in time.

Succinctly, what all this means is that although international cooperation is encouraged, generally it is on a quid-pro-quo basis, and it is tied to specific foreign policy objectives of the U.S.

Library of Congress

The Library of Congress has by far the largest foreign acquisitions program in the United States and because of the impact of this program on all U.S. libraries and because such a program does require international cooperation, I would like to say a few words about the Library of Congress.

Authorizing legislation establishing the Library of Congress was approved by the Congress on April 24, 1800. John Lorenz, Deputy Librarian, Library of Congress points out that the effective founding of the Library of Congress might be said to date from the placing with a London dealer in June 1800 of the first order for an initial shipment of books.

On June 19, 1834, Congress approved a resolution providing that 25 copies of every work printed by the order or expense of the United States should be placed at the disposition of the Joint Library Committee of the Congress to be disposed of by them in return for donations to the Library of Congress.

The first exchange of official publications with a foreign country, France, took place in 1837 and on July 20, 1840, a joint resolution authorized 50 additional copies of documents to be printed specifically for the purpose of exchange in foreign countries. The number of copies for exchange has now been raised to 125.

The library though its Exchange and Gift Division operates the largest program in the United States for the exchange of publications. In addition to administering the official exchanges of sets of U.S. Government publications with other nations, the

Library also maintains more than 22,000 unofficial exchange arrangements with educational institutions, learned societies, and governmental agencies in nearly all countries throughout the world.

During recent years the Library has been receiving well over 500,000 pieces annually from all exchange sources.

In 1962 the Library of Congress began a limited acquisitions service for American research libraries under Public Law 83-480, as amended. This legislation governs the sale of surplus agricultural commodities to foreign countries and authorizes the use of part of the currencies accruing from these sales for the purchase of library materials in multiple copies.

The first programs were established in India, Pakistan, and the United Arab Republic and only with their permission. Major U.S. research libraries were invited to participate on the basis of recommendations made by a U.S. Committee of librarians and scholars. In making its recommendations, this committee placed emphasis on the basis of a well-established research collection in the areas of concern and the need for equitable geographical distribution within the U.S. of the materials to be acquired under the program.

In subsequent years, under this program, offices staffed by local personnel and administered by an American Field Director were established in Indonesia, Israel, and Yugoslavia. There are now over 40 institutions receiving comprehensive sets of publications from one or more of the countries involved. Each U.S. participant is required to contribute $500 toward the general cost of each program in which it participates.

The PL 480 programs have been highly successful in terms of publications acquired overseas and distributed in the U.S. Over 11,000,000 pieces have been so acquired under this program.

The PL 480 programs have not been limited to the acquisition and distribution of library materials. An attempt is made to catalog virtually all publications acquired. Before shipment to participants, each publication is given preliminary cataloging by the overseas office which acquires its. This preliminary cataloging information accompanies the publications distributed and is made available to libraries through the wide distribution of accessions lists published by the various overseas offices.

Currently approximately $1,000,000 in excess counterpart currencies is being spent for library materials.

Another acquisition program of even more major importance to U.S. libraries in the acquisition of foreign materials is the National Program for Acquisitions and Cataloging - known as NPAC or the Shared Cataloging Program. Title II-C of the Higher Education Act of 1965 authorizes the appropriation of funds for the purpose of insuring, insofar as possible, the acquisition by the Library of Congress of ALL library materials of value to scholarship currently published throughout the world, the prompt cataloging of these receipts, and the distribution of bibliographic information by printed catalog cards and other means.

To avoid unnecessary duplication of cataloging already done in other countries, the Library has adopted "shared cataloging" techniques wherever possible in cooperation with national libraries and producers of foreign national bibliographies - using the descriptive cataloging data already prepared for recent publications in their countries of origin and speeding the data to Washington, D.C. for completion and distribution as quickly as possible.

The Library of Congress has arranged to "share" the cataloging data of twenty-four foreign national bibliographies. The Library of Congress describes on its printed catalog cards all current foreign monographic titles received from its "shared cataloging" partners in the same terms used by the respective national bibliographies. This means that the title transcription, the collection, and the imprint reflect the foreign practice, which is considered to be as comprehensive, or more so, than current Library of Congress practice. The price is foreign currency and the distinctive registry number in the issue of the national bibliography are indicated when available to identify the source of the description and to facilitate the ordering of the books directly from the catalog card information. The choice and form of author entry and secondary entries, the repetition of the author statement, the subject headings, and the Library of Congress and Dewey Decimal classification numbers continue to follow Library of Congress practice.

In order to accomplish the aims of the NPAC program, nine shared cataloging centers covering 15 countries operate in London, Vienna, Wiesbaden, Oslo, Paris, Belgrade, The Hague, Florence, and Tokyo. Books published in East Germany, Switzerland, Sweden, Finland, Denmark, and Belgium are processed through these centers in addition to the books published in each of the countries where the centers are located. Direct arrangements between the Library of Congress in Washington and the national bibliographies of Australia, Canada, New Zealand, South Africa, the USSR, Czechoslovakia, Bulgaria, and Romania are working successfully, bringing to 24 the number of countries receiving shared cataloging coverage. An NPAC arrangement has recently been negotiated with Spain - In addition, three regional acquisitions centers - in Nairobi, Rio de Janeiro, and Kjakarta - cover 18 additional countries.

The successful acquisition program of the Library of Congress would not be possible without the help of the many cooperating countries - certainly an example of international cooperation.

National Library of Medicine

International cooperation is not limited to the exchange and acquisition of books, journals, and reports. To illustrate this point let me mention some of the international activity of my own organization - the National Library of Medicine (NLM). In a traditional sense NLM does have 895 exchange arrangements with 88 countries bringing to the Library medical serials in 42 different languages in exchange for the Library's publications. However, one of the exciting new directions of NLM's international program involves a different type of exchange arrangements with Canada, Sweden, U.K., France, Germany, WHO, Japan, and Australia.

Since 1879 Index Medicus has been the basic bibliographic tool in the medical field around the world. Beginning in 1964 NLM computerized its Index Medicus production process and this computerized base now contains the cataloging and indexing data for 2,000,000 medical journal articles with data for 250,000 more being added annually.

This computerized data base called MEDLARS and the NLM computerized search and retrieval programs have been provided to the NLM partners for their use in providing this computerized service in each of their geographical areas. In return for this, each country provides 12,000-15,000 medical journal articles plus the cataloging and indexing completed in accordance with NLM standards and utilizing the NLM bibliographic authority tools. This exchange program involving journal literature is an expanded "shared cataloging" program with the foreign contributions, after a quality check at NLM, becoming direct input into the MEDLARS system. MEDLARS in turn produces Index Medicus, and provides a computerized on-line real-time interactive search and retrieval service called MEDLINE. Currently in the U.S. 180 organizations from 300 remote consoles can instantly access and interrogate the NLM computerized data base in Bethesda, Md.

Recently, the National Science Library in Canada and 12 Canadian medical schools have tied in directly to MEDLINE on the NLM computer. The French Medical Research Center in Paris is also connected to our computer and we are exploring ways for the other foreign partners to do likewise. An international computerized information service is in the making and all through international cooperation.

There are other examples I could describe if time were available, but I regret that my time has run out. Perhaps in the discussion period I can answer specific questions and if you wish, say a few words about the UNESCO program called UNISIST.

INTERNATIONAL COOPERATION

BY

Dr. Lawrence D. Eicher

Senior Staff Associate

Data Systems Group,

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NATIONAL SCIENCE FOUNDATION

As you have just been told, I have agreed to speak briefly today on the topic of International Cooperation as it is related to the Federal Library Community. My qualifications for this task are miniscule when compared with those of Mr. Day. However, I had the advantage of hearing his presentation yesterday and will attempt to briefly outline his major points so that those of you who have a special interest in them can make a point of reading the full text of his speech in the conference proceedings.

Mr. Day cited a policy statement that was made by the Federal Council for Science and Technology in March 1968. Essentially this statement directs Federal Agencies to "barter" with other nations when exchanging information, and adds the proviso that information may be given away when foreign policy objectives were served.

Further, Mr. Day cited the Library of Congress' exchange and gifts program as the largest in the United States - the library maintains more than 22,000 unofficial exchange arrangements with educational institutions, learned societies, and governmental agencies.

Mr. Day also touched on the P.L.-480 programs, which started in 1962, and have resulted in the acquisition of over 11,000,000 documents for participating Federal Agencies. As you may know, P.L.-480 governs the sale of agricultural commodities to foreign countries and authorizes the use of part of the accrued foreign currencies for purchase of translation services and library materials.

Mr. Day also discussed the National Program for Acquisition and Cataloging (NPAC) at the Library of Congress -- involving 24 countries -- as a prime example of international cooperation.

Finally, Mr. Day cited the MEDLARS-MEDLINE system at NLM as exemplifying a nontraditional form of international cooperation dealing with information.

I hope my brief summary of Mr. Day's remarks has not done too much damage! -- now I will make a few of my own comments.

First, I would like to cite a few international organizations that have components which are specifically concerned with scientific and technical information.

ICSU - CODATA

In 1966 the International Council of Scientific Unions (ICSU): established the Committee on Data for Science and Technology (CODATA). The committee was given the basic mission of promoting and encouraging, on a worldwide basis, the production and distribution of compendia and other forms of critically selected data on substances of interest and importance to science and technology.

Recently, a similar group was established by the World Federation of Engineering Organizations (WFEO).

UNISIST

In October of 1971, Unesco convened an Intergovernmental Conference for the Establishment of a World Science Information System. The conference met to consider the recommendations of a four year study of the feasibility of such a system. The conference found that such a system would be desirable and feasible, and recommended that Unesco establish a program to implement it. The program, called UNISIST, is to advance a World Scientific and Technical Information System comprising a flexible network of existing and future information services.

At this point, I could go more deeply into the activities and accomplishments of these important examples of international cooperation in the information field, but I have chosen to focus on a slightly different approach. In order to do so, I will take a slight liberty with the title of the talk and add four words -- "The Coming Need for" -- International Cooperation. The reason for doing this is because I would like to take the few remaining minutes of this talk to discuss the findings of a recent OECD (Organization for Economic Cooperation and Development) study entitled "Information in 1985" by Professor Georges Anderla of the University of Paris. It is a forecasting study of information needs and resources at the international level. Personally, I find the study interesting from several points of view, but is is particularly relevant to current and future international coordination and cooperation.

Among other things, the study analyzes the assumptions which have been made in the past about the magnitude and rate of growth of scientific and technical information. For example: That growth of STI in all forms for the last two centuries has been exponential with a doubling period of 10-15 years, but that this exponential growth was bound to taper off, and in fact was already doing so -- that the total number of scientific journals appearing more or less regularly was somewhere between 30,000 and 50,000.

Anderla (who by the way is not an information scientist, but an economist) finds that these assumptions appear to substantially underestimate reality. He finds that the exponential growth rate results in a doubling of STI in the 6-10 year range -- that the current annual output of scientific journals is approximately 70,000 and that there is no evidence that a tapering off of STI output can be expected in the next 15 year period. Further, that the combined output of all kinds of scientific writings is about 2 million documents per year (6 to 7 thousand articles and reports per working day)!

Whether one chooses to look on these findings as a stimulating challenge for the information business, or as an added gloomy dimension of the quagmire already caused by the information explosion -- depends on one's outlook. Nevertheless I think the handwriting is on the wall, as far as a need for international cooperation is concerned.

There are two other points I would like to make regarding the Anderla Report.

First, a finding that there appears to be a very strong correlation between information supply and utilization. The study points out that past analyses of information services have shown that in any one year half of the holdings of science library or analysis centers are never consulted, and that approximately 25% are consulted only once, and further that half of the demand could be satisfied by about 5% of the holdings, and 80% of the demand by 10% of the holdings. Findings like these have unfortunately led to an unjustifiable conclusion; -- namely that a scientific library or analysis center could, without leaving users unsatisfied, dispense with exhaustive collections in favor of a limited selection of books and periodicals.

To show that this conclusion is unjustifiable Anderla analyzed the rate of demand growth as a function of the rate of holdings growth for a selected group of libraries which had significantly different growth of holding rates. What he found was that the growth rate of requests did not correspond to the growth rate of potential users -- but rather to the growth rate of the library holdings. In other words there appears to be a significant cause and effect relationship between "comprehensive" supply and demand.

My final point deals with types of services rendered by STI organizations. I would like to list six.

1. Browsing
2. Reviews and/or Reference Lists
3. Current awareness SDI (Selective Dissemination of Reference Lists)
4. Initiation to a field which is new to the customer
5. Answers to specific questions
6. Complex synthesis with a view toward new hypothesis for decision making

The first four operational functions are reasonably familiar to all of us. However, it is my belief that the exciting new frontiers in information science are connected with the last two.

First, looking at the service "Answers to specific questions." I think this is an area where the first developments are just beginning to take place. We at the National Science Foundation's Office of Science Information Service have a keen interest in their development.

Speaking as a scientist I know that my need for information goes much beyond a list of references that may or may not contain the answer to the specific question I have in mind. For example, I may want to know the melting point of a certain substance. If my information service can't give me the number, I wouldn't be too unhappy if it could tell me whether that information exists or not, and if it does -- where I could go to find it, not where I could go to look for it.

The need for direct access to the quantitative and factual results of scientific research is becoming more and more apparent, and the response in terms of the growth of new information systems that delivery *scientific data* in addition to bibliographic data is significant. What this means to library operations depends, of course, on the extent of individual library's involvement with these developing complex systems.

Finally a brief comment on the 6th service, that is the ability to perform a synthetic operation on several data bases.

There are at least two general areas where I think this kind of service will be used. One area is that of scientific-technical program management where there is a real need to obtain current information from a variety of sources -- rapidly!

Dr. Ulrichson and I were talking just yesterday about an interesting example of this -- that we might comment on during the discussion period.

The other area is more closely related to basic research and might be called fundamental synthesis research. The closest things we have to this today are Critical Reviews, State of the Art Summaries, and Compilations of Critically Evaluated Scientific Data. In the future I believe this kind of activity will become a more highly valued form of scientific creativity, and highly sophisticated information systems will evolve to provide the necessary tools.

FOREIGN LANGUAGE SKILLS IN FEDERAL AGENCIES - A PROGRESS REPORT

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ABSTRACT:

This paper gives a short review of a proposal made at the 1971 Library Workshop. The proposal dealt with compiling a list of Federal employees with foreign language abilities. Progress to date is shown. Finally an appeal is made to Librarians to participate in extending the list to agencies not previously included.

The need of a list of Federal employees with foreign language abilities has been apparent for some time. Thus, the proposal, at the 1971 Library Workshop, of compiling such a list was welcomed. Librarians of the Interior and Commerce Department cooperated and provided a nucleus for a publication containing a substantial number of persons with language skills.

The original proposal was, in essence: Librarians determine the foreign language resources in their agencies. These resources are pooled, providing a quick access for all librarians to persons proficient in foreign languages. This list is intended to be used as a tool, supplementing other methods in use by librarians dealing with foreign language materials. (1)

It was suggested at the conclusion of the 1971 Library Workshop that the next workshop session dealing with translations include a report on progress made toward developing this pool.

The present copy of "Foreign Language Skills in Federal Agencies" is the result of the first survey taken in the Commerce and the Interior Departments. (2) Twenty-five languages are included in this edition, French, German, Russian, and Spanish skills being most prominent. But you will also find an occasional fellow Federal employee with such language knowledge as Chinese, Japanese, or Turkish. An important feature of this list is the inclusion, when applicable, of the field of specialization of the participants. This can be valuable to the librarian when the subject matter is not of the general type.

Naturally we have to update our list periodically. (People retire, move, quit, etc.). I accept revisions for updating any time.

Of course to get the most out of our list we should include employees of as many departments and agencies as possible. Therefore I appeal to those of you who have not participated in the past to look into the language resources of your agency and submit the names. Naturally inclusion in "Foreign Language Skills in Federal Agencies" is voluntary. In addition participants being employed in capacities other than translation, they must not be asked to do extensive translating.

With this I submit this issue of "Foreign Language Skills in Federal Agencies" to you, hoping that it will be useful to you, help you in your work and make you more effective. Your comments and suggestions will be most welcome.

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THE FEDERAL LIBRARIANS ROUND TABLE (FLIRT)

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1. Formation of the Federal Librarians Round Table and its goals.
2. Activities and development during the past year.
3. Current efforts and goals and prospects for the future.

The Federal Librarians Round Table, now nearly a year and a half old, was conceived as a means for the gathering, within the American Library Association, of member librarians working for Federal establishments to enable them to exchange information and work together toward the discussion and solution of common problems. As other similar round tables, FLIRT is a professional group within the structure of our national professional association, and while it shares the goals of that association it also pursues the goals, interests, and problems which are more specific of the federal library community. Robert Severance, Director of the Air Force University Library, Maxwell Air Base, Alabama, and Stanley Bougas, Librarian of the Department of Commerce, provided both the impetus and the spade work which led to the formal organization of the Federal Librarians Round Table on June 29, 1972, at the Annual Conference of the American Library Association in Chicago. The first president of the Round Table was Stanley Bougas, who proceeded to organize it along the lines we have today and who started FLIRT on its promising career. The secretary of the Round Table, for that first year, was Michael Costello of Picatinny Arsenal. This year, the vice-president and president-elect is Joseph Price of the Library of Congress and the secretary is Barbara Ivey of the Academy Library of the Department of the Air Force.

During the first year, the constitution and by-laws of the group were drafted and approved, a newsletter, the FLIRT Newsletter, was got under way and three issues of it were published. Since its beginning, FLIRT has held Executive Committee and Membership meetings at both the ALA Midwinter Meeting in Washington, D.C., and the annual ALA Conference in Las Vegas. Similar meetings are being planned for January and July 1974. Program meetings for the membership have included reports by Edwin Olsen and Rosemary Merritt of the Center for Educational Statistics of the U.S. Office of Education on the on-going survey of federal libraries; by Catherine D. Scott of the National Commission on Libraries and Information Science on the history and activities of the Commission; and by Patricia Berger, U.S. Patent Office Scientific Library, on guidelines for the redistribution of federal library resources and collections during periods of reorganization.

As of May 1973, total membership was reported by the ALA head office at about 240, a number which I hope has since increased and will continue to increase in years to come. Dues are at present $2.00, payable with the ALA membership fee. This currently constitutes an annual income of about $480: a rather small sum these days, especially if we continue to produce and issue the *FLIRT Newsletter* three times a year. In order to place ourselves on more solid fiscal ground, it is my intention to propose to the membership and the Executive Committee that our by-laws be amended to provide for annual dues of $3.00 rather than $2.00. This will be a very moderate increase, but enough, I hope, to give us a safer margin.

The three FLIRT newsletters have proved to be a very valuable means of communication and information. We plan to continue issuing the newsletters, but in this we need the active assistance and cooperation of the membership. We need contributions of articles, news, suggestions, and a lively participation in discussion. Please keep this in mind and send your contributions to either myself or Joseph Price at the Library of Congress.

Since its inception, the chief goals of FLIRT have been:

1. Promotion of library service and the library profession in the federal community.

2. Promotion and appropriate utilization of federal library resources and facilities.

3. Provision of an environment for the stimulation of research and development relating to the planning, development, and operation of federal libraries.

In simpler and more direct words, the basic goal of the Federal Librarians Round Table, I feel, is to supply both a focus and forum for professional federal librarians for an active exchange of information and the discussion of problems of common interest. In planning our program for the current year, 1973-1974, it has seemed that aside from the preparation for the Midwinter meeting in January of 1974 and the Annual ALA Conference in New York, three main areas should receive the highest priority:

1. The expansion of the membership;
2. The consolidation and the sharpening of focus of the role and goals of the Round Table; and
3. The establishment of all possible coordination and cooperation with other groups and associations with which the Round Table has interests in common.

In line with this last point, I am pleased to announce that for the annual ALA Conference in New York City, a combined luncheon is planned with the Armed Forces Librarians Section, whose president, Stanley Kalkus of the U.S. Naval Underwater Weapons System Center, Newport, Rhode Island, has been most cooperative in the arrangements. The luncheon is scheduled for Wednesday, July 10, 1974.

Programs for the forthcoming ALA meetings at Midwinter and next July are now under consideration and will be announced in the near future in the next issue of the FLIRT Newsletter. In these programs we hope to bring to you topics of both current and vital interest to federal librarians.

The Federal Librarians Round Table has had a good start and it is off to a promising future, but I want to stress once again that we need your support in joining the Round Table and in contributing to its growth and development with your ideas, your suggestions, and your full participation.

DATA BASES: WHAT'S AVAILABLE, SOURCES, LIBRARY CONSIDERATIONS

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ABSTRACT

This paper presents a brief overview of bibliographic data bases that would be of interest to government librarians. Also discussed will be types of services that a library may offer to users when data bases become available. Two appendices will contain sources of vendors providing data base access, and a bibliography of sources for an in-depth review of the over 150 available data bases.

INTRODUCTION

The subject of my talk concerns Data Bases--what's available, how to find out about them, and how to use them. I also intend briefly to discuss the effect of data bases on library operations. There are over 150 bibliographic data bases now on the market; by December the figure could easily be 175, and by next year reach 250. Rather than discuss them all, I have provided a short informal bibliography of publications that should be helpful in learning about most of the available systems and some recommended readings (Appendix A). Not included are sources for ERIC Clearinghouse information and NASA regional centers. Appendix B contains sources for those who wish to have access to search data bases on a per terminal hour charge or for searching selected data bases off-line on a per volume basis.

My assumption of this audience is that no one needs a definition of the information retrieval terminology. If this assumption is not correct, please do not hesitate to interrupt me and ask questions. My talk today will summarize the types of service that are possible with data bases and briefly review 20 of the more popular data bases which are presently in use by my library. They are representative of the kinds of systems that are currently available. Lastly, I will discuss the effect of data bases on library service and librarians.

I hope to produce an evaluation of different on-line systems, the quality of service from vendors, usefulness of the data bases, and the effect of these services on user-library interface at a later date.

SEARCH SERVICES

I would first like to briefly review the three general types of retrieval services that libraries can offer with data base access.

On-line Searching

On-line searching queries data bases instantly and provides immediate response between the user and the data base. Data base coverage depends on the amount of information in the computer and usually is limited to the last few years. Besides quick response, on-line searching is recommended as a way of testing for the presence of relevant material, or for refining a search strategy before going further or deeper into a data base.

Retrospective Searching

Retrospective searching, operating off line (or in batch mode), can go back as far into the literature as the user desires or to whenever the data base was established. Turn-around time for batch searches may be from 1 day to 2 weeks, depending on the size of the files being searched. However, search results are forwarded to the user throughout this period as they are processed.

Retrospective searching is employed to search very large files in order to locate documents of interest to the user. These searches are much more in depth than the on-line searches and often cover many more years.

Current Awareness Searches

Current awareness searches cover either the latest issue and/or each successive current issue from a data base and can be used to give a continuous flow of information.

The request is structured in accordance with the researcher's informational needs. On a regular schedule (such as weekly or monthly) this request is matched against an appropriate data base or bases. A request can be adjusted at any time to reflect changing requirements or professional interests. Selective Dissemination of Information (SDI) services are a form of current awareness. The difference is that SDI is narrower in scope and will contain more specific and edited citations. This is accomplished through a custom-made profile developed specifically to reflect user requirements. Current awareness searches are more general and reflect broader categories of interests such as "management, air pollution, or electronic components." Current awareness and SDI are often used by most information specialists synonymously.

DATA BASES

The data bases for review may be considered as our top 20. We use another 15 in our library on a less-than-regular basis. In addition, I hope to add five to eight more within the next 6 months.

Analytical Methodology Information Center (AMIC)

The AMIC computerized data base was established in 1971 by Battelle, Columbus Laboratories, Columbus, Ohio, under contract for the EPA.

Each month AMIC adds to its data base approximately 200 indexed and abstracted current reports on methods for determining the identity, concentration, and ecological effects of pollutants, and measuring water quality. Subject areas covered by AMIC include biology, chemistry, instrumentation, microbiology, and quality control. The data base has about 5,000 documents in it.

Biological Abstracts-Previews (BA-P)

The magnetic tape of Biological Abstracts (BA), semimonthly, and BioResearch Index (BRI), monthly, are available a full month ahead of publication. The BA-P tapes, published since 1969, are issued three times per month. The BA and BRI tapes were also published in 1968.

Tape records of 140,000 papers, and an average of 6,000 per issue, were reported in BA, and 90,000 additional papers were reported in BRI, an average of 7,500 titles per issue (1970). BA and BRI together contained approximately 850,000 document records.

Approximately 8,000 primary publications originating in 97 countries and territories are covered by BA-P. Research articles covered have been classified into more than 580 subject specialties (interest areas). Basic research articles are covered by BA, but applied research articles such as letters, institutional and government reports, bibliographies, reviews, papers from symposia and semi-popular journals, are covered by BRI.

CA-Condensates

CA-Condensates is a weekly computer-readable service that provides the following searchable data items from the corresponding issue of Chemical Abstracts (CA): Titles of papers, patents, and reports; names of authors and assignees; bibliographic citations; and phrases from the CA issue of Keyword Index. There is no accompanying printed version of CA-Condensates. The service is designed to provide the user with the capability to scan rapidly by title and keyword the pertinent content of some 250,000 new articles and patents each year extracted from 12,000 chemical journals.

Publication of the tapes began with Volume 69 (July 1968). Two volumes of 26 issues each are published per year. Over 1,000,000 citations are now in this data base.

Cataloging and Indexing (CAIN)

The initial CAIN tapes (three reels) designated "CAIN 1969," contain 42,667 records. The January 1970 tape records are included in the CAIN 1969 volume. Approximately 5,500 tape records are produced monthly, depending on the number of publications received and processed by the National Agricultural Library.

Approximately 11,000 publications are covered by CAIN. Tape records are produced monthly and are divided among 18 broad subject areas providing bibliographic data concerning the literature of agriculture and related sciences. Journal articles, pamphlets, government documents, including USDA, state experiment stations, and extension service publications, special reports, etc., received by the NAL are sources for entry of data on the CAIN tapes. CAIN contains about 100,000 records to date.

Chemical-Biological Activities (CBAC)

Chemical-Biological Activities (CBAC) is a biweekly tape service supplied by Chemical Abstracts Service containing digests of current scientific articles related to the field of biochemistry. CBAC covers the scientific literature that reports the interactions of organic compounds with biological systems as well as related metabolism and in-vitro chemical studies.

About 600 journals are referenced in CBAC per year. Two volumes of 13 issues each plus Cumulative Indexes for each volume are published each year, dating from January 1965. A total of 110,000 digests were published in the first 12 volumes (January 1965 - January 1972); an average of 9,100 digests per volume.

The separate printed copy of CBAC ceased in December 1971. It is contained in the first five section groupings of Chemical Abstracts, the Biochemistry Sections. This data base is also part of the TOXLINE system.

Computerized Engineering Index (COMPENDEX)

COMPENDEX is the computerized version of the Engineering Index. The COMPENDEX data base, containing the input to the Ei Monthly for each issue from January 1969 to the present, provides rapid access to over 7,000 abstracts monthly, reflecting the contents of 3,500 sources of worldwide technical information and the work of 88,000 authors. It covers all fields of engineering and certain related fields of science and management, pertinent quality research and applications literature; assembles the various engineering disciplines side by side with interconnection cross references.

Users have the option of searching the complete record (full test search) or searching selectively on chosen data elements: Subject heading and subheading, document ID number, author(s) Ei abstract number, codes assigned to the CARD-A-LERT service divisions, access words (which are cross references chosen for the printed version of COMPENDEX), and the free language terms.

Educational Resources Information Center (ERIC)

The ERICTAPES comprise the magnetic tape copies of the Educational Resources Information Center (ERIC) files, consisting of 30,000 report resumes from 1966 on 12,000 journal article citations from 1969 on, and a thesaurus.

The Report Resume Files consist principally of resumes of research reports files by contractors and grantees on the results of funded educational research. The Journal Artical Resume Files contain resumes of journal articles on educational research selected from over 500 education and education-related journals. The Thesaurus File is a complete Thesaurus of ERIC Descriptors from which subject indexing terms are selected for both report and journal article resumes.

Geological Reference File (GEO.REF)

GEO.REF is the data base originated by the Geological Society of America, in cooperation with the American Geological Institute. The GEO.REF tapes are available beginning with 1967. The bibliographic information dates from 1965, however. The printed publication correpsonding to this data base is Bibliography and Index of Geology.

This data base covers world-wide literature of geology and related technologies selected from over 2,000 serials and special publications. Entries are classified under 21 categories, which include such disciplines as Geochemistry, Geochronology, Paleontology, Stratigraphy, and Structural Geology.

IFI/Plenum Index

The "Uniterm Magnetic Tape Index" file contains references to all U.S. chemical and related patents issued since 1950. The file contains more than 7,000,000 references recorded from over 250,000 patents. No equivalent hard-copy version of this file is available.

Institute for Scientific Information (ISI) Science Citation Index

The ISI Science Citation Index tapes (source and citation) cover the current literature of science and technology (including the social sciences). They contain bibliographic information about the source articles, and also about the references cited in those articles, which are covered in the five sections of Current Contents, approximately 8,000 current items each week.

Dating from 1964, coverage is comprehensive and includes all items (other than advertisements and ephemeral notices)(in approximately 2,500 key scientific journals.

File size in 1972 was over 2,750,000 records (source items) with approximately 410,000 items added per year.

Machine Readable Catalog (MARC II)

MARC is the production of Library of Congress cataloging data in computer readable form. The format was implemented in June 1968. At present, MARC II cataloging data is limited to English language monographs, which also includes government reports/documents, and conference proceedings. Plans for expansion to cover monographs in French and German are being studied. MARC is available on-line and will be used as the basis for NERC-Cincinnati library providing scientific and technical cataloging service to any EPA library that so requests.

MARC is available on-line and tapes can be purchased from the Library of Congress. OCLC (the Ohio College Library Center) uses MARC and also the shared cataloging efforts of all of the members to provide an extensive source of cataloged material and holdings information.

MEDLINE

MEDLINE (acronym for MEDLARS On-Line) is a new service from the National Library of Medicine. It provides on-line bibliographic searching of biomedical journal literature. The data base includes more than 400,000 citations with index terms from 1,138 of the most important periodicals indexed from Index Medicus. Coverage is from January 1, 1969 to the present. MEDLINE is accessed by telephone lines, and a nationwide communications network became operational early this year. Toll-free lines are provided to the MEDLINE data base in about 35 cities. Other cities pay charges to the closest node in the network.

Interactive dialogue is one of the most important features when a question is initiated at a MEDLINE terminal. This allows a question to be negotiated for the best possible retrieval. Twenty-five citations may be printed on-line and up to 300 citations may be requested for off-line printing at National Library of Medicine with their high-speed printer. These will be sent air mail either the same evening or the next morning.

National Technical Information Service (NTIS)

The U.S. Government Reports Announcements (USGRA) and the U.S. Government Reports Index (USGRI), formerly called the U.S. Government Research and Development Reports (USGRDR), tapes are issued twice monthly, 24 issues per year; approximately 50,000 document records are added per year.

The National Technical Information Service (NTIS), formerly the Clearinghouse for Federal Scientific and Technical Information (CFSTI), began making available magnetic tapes of its USGRDR beginning with the January 10, 1970 issue. With Volume 71, Issue No. 6, March 25, 1971, the name of the NTIS's announcement journal changed from U.S. Government Research and includes technical publications of the Department of Commerce which are not research and development reports, as well as the research and development reports previously being covered. A similar change was made in name to the U.S. Government Research and Development Reports Index (USGRDR-I), which became Government Reports Index (GRI).

Nuclear Science Abstracts (NSA)

Nuclear Science Abstracts (NSA) is a semimonthly publication of the USAEC Office of Information Services, published by the USAEC, Technical Information Center. There are 24 issues per year and per volume.

A total of 450,000 abstracts were published in the first 21 volumes (1948-1967). The annual volumes now contain approximately 47,000 abstracts each.

NSA, as a hard-copy publication, began in 1948. The first computer files available began with Volume 29, Issue No. 12, (mid-1966). NSA provides the only comprehensive abstracting and indexing coverage of international nuclear science literature. It covers scientific and technical reports of the U.S. Atomic Energy Commission and its contractors, other U.S. Government agencies, other governments, universities and industrial research organizations. In addition, books, conference proceedings, individual conference papers, patents, and journal literature on a worldwide basis are abstracted and indexed.

The tapes contain the primary document citation, including ASTM Codens and abbreviated titles, the title of the article, additional thesaurus-controlled indexing terms and subject codes, location of work, authors' names, and secondary citation.

PANDEX - Current Index to Scientific and Technical Literature

PANDEX - Current Index to Scientific and Technical Literature provides a comprehensive data base from 2,100 scientific, technical, and medical journals; 6,000 scientific technical books; 5,000 selected patents; and 50,000 U.S. Government technical reports annually. It covers all areas of pure and applied science, with coverage beginning in 1967. Each entry record contains manually indexed or manually edited thesaurus-generated subjects. PANDEX serves research requirements not satisfied by single disciplinary indexes but provides access to all literature of interest to a discipline as well.

The index generated by PANDEX from this data base is divided into two areas: (1) Subject-entries containing full title, primary author, and periodical reference, arranged by all significant subject words and subarranged by all significant secondary words; (2) Author-entries containing all authors arranged alphabetically (primary author entries containing full title, all other authors, and the periodical reference)(secondary author entry containing name of primary author and periodical reference).

Psychological Abstracts

Psychological Abstracts, published by the American Psychological Association, Inc., Washington, D.C., is an important monthly bibliography listing new books and articles grouped by subjects, with an abstract of each item. Currently, the data base tapes cover from 1967 through current issue and include information from 600 journals.

Searchable Physics Information Notices (SPIN)

SPIN files, covering all areas of physics and astronomy research, are available dating from July 1970, from the American Institute of Physics. The monthly issued files constitute the machine-readable copy of the current input to the catalog of the National Information System for Physics and Astronomy (NISPA). An average of 2,000-2,500 document records per month are included. Currently, 65 journals are reviewed by AIP, covering 40 percent of the world's journal literature on physics.

Data filed on SPIN tapes include: Article title, authors, affiliations; the journal title, volume date, and page number; the abstracts; keywords, subject classification numbers; and the bibliographic references to other articles taken from the original papers. SPIN also contains the reel and frame number of the first page of each article published in full text in Current Physics Microform (CPM). Information centers subscribing to both SPIN and CPM can provide a current awareness alerting service for material chosen to meet individual interest profiles with the full text backup for AIP published journals from the CPM microfilm.

Smithsonian Science Information Exchange (SSIE)

SSIE annually collects 85,000 to 100,000 single-page records of research projects currently in progress. The projects included in SSIE searches are from public, private, and government sources.

Each record describes who supports the project, who does it, where and when the research is performed. The record includes a technical summary of the project. This collection covers basic and applied research in life, physical, social, behavioral, and engineering sciences. Information is available in areas as specific or general as the requester desires.

TOXLINE

This new toxicology information system is an extensive collection of computerized toxicology information and data. It originates from the Toxicology Information Program of the National Library of Medicine.

TOXLINE provides on-line literature searching and is designed to serve health professionals working in the areas of environmental pollution, industrial or occupational health and safety, pharmacology, toxicology, medicine, agriculture, and other bioscientific disciplines.

The data base is actually a combination of other data bases containing citations primarily, most including abstracts and/or indexing terms, full text state-of-the-art reports and toxicity data. Contributing input are the following:

> The Hayes File on Pesticides.--Includes more than 10,000 citations of reports of health aspects of pesticides with a limited number of index terms and abstracts. (EPA, 1940 to 1966).
>
> HAPAB (Health Aspects of Pesticides Abstract Bulletin).--Includes more than 8,000 abstracts of reports of the health abstracts of pesticides in humans and animals; poisoning treatment, pesticide residue analysis and monitoring. (EPA, 1966-current).
>
> HEEP (Abstracts on Health Effects of Environmental Pollutants).--A compilation of abstracts and citations of reports on effects of chemicals other than medicinals on humans and animals and on analytical methodology.
>
> CBAC (Chemical-Biological Activities).--A product of Chemical Abstracts Service; it contains more than 110,000 citations and CAS registry numbers.
>
> IPA (International Pharmaceutical Abstracts).--A product of the Society of Hospital Pharmacists, it contains information on the toxicology of drugs, chemicals, and other pharmaceuticals.

Water Resources Scientific Information Center (WRSIC)

WRSIC has an automated data base for retrieval of over 50,000 abstracted entries from Selected Water Resources Abstracts, a semimonthly journal. Each abstract includes a full bibliographical citation and a set of descriptors or identifiers which are listed in the Water Resources Thesaurus.

The contents of these abstracts cover the water-related aspects of the life, physical, and social sciences and related engineering and legal aspects of the characteristics, conservation, control, use or management of water.

Usage of data bases in a library will greatly enhance reference and research capabilities. Librarians can provide a full and comprehensive information product by augmenting the search results with information found in standard hard-copy abstracts and indices or in primary sources not included in the data bases.

However, librarians must be aware of the effect of data base availability on collateral services. For example, we had to triple journal subscriptions so that we could have access to sources most frequently listed on the search printouts. Our interlibrary loan activity more than doubled to reflect our need to obtain additional reference material. We had to acquire more reports and other publications on microforms because of space limitations. Lastly, we were forced to adopt a better weeding policy so that the limited space could be put to maximum usage by purchasing material to supplement or complement the data bases. In addition, coffee breaks, most travel, outside professional activities, and "the clubhouse environment" have been severely limited. The librarians work harder than ever before, on a professional level as never before, and feel a part of the professional team as hardly ever before. I don't think any of them would trade places with a librarian in a conventional library. In our library the status of librarians, their professional acceptance, the favorable measurability of service, the development of a recognized essential product and a self pride in work are direct fall-out of data base accessibility.

I have not discussed technical processing or circulation systems because they are designed for in-house usage with little or no direct user impact. Users are not overly impressed when they see a book catalog or get a printout of overdue books. They feel "at last the library is using modern techniques." The fact that the library can function better internally has little effect outside the library community.

Data bases are a different animal. Users now can see the difference in operations that matters to them. At last the world of information retrieval and the accessibility to millions of published documents can be obtained by simply walking into the library. Librarians will soon learn about "the halo effect" that comes with full professional status when this kind of service can be offered. By "the halo effect" I mean the respect of professional level users for the librarians awareness of the multitude of available information, the ability to quickly find relevant documents, the knowledge of computer usage, and the unique capability to perform a comprehensive service by producing a product of value and meaning at a highly favorable economic level.

I hope the next time I speak to this kind of audience the topic is "After data bases - what next?" and not "Where did all the people, budget, and information requests go?"

Appendix A

SUGGESTED SOURCES FOR DATA BASE INFORMATION

Survey of Commercially Available Computer-Readable Bibliographic Data Bases, edited by Schneider, et al., published by the American Society for Information Science, January 1973. This is the publication and a *must* for those interested in an overview of the leading data bases. It provides information on sources, structure, size, coverage, costs, and other essential data.

Volume 7 of the *Annual Review of Information Science and Technology* (edited by Cuadra) contains a comprehensive review (Chapter 9) on "Machine-Readable Bibliographic Data Bases." This review covers all known literature on data bases from 1969-1971, and describes 154 data bases produced by 102 organizations throughout the world. It also contains complete references to other studies and to other data base literature.

Library and Information Science Today (LIST-1972), edited by Wasserman et al., describes over 800 research efforts as of late 1971. Many of these efforts involve the generation and use of machine-readable data bases.

The United Nations Economic Commission of Europe (ECE) and the Organization for Economic Cooperation and Development (OECD) prepared an *Inventory of Some English Language Secondary Information Services in Science and Technology* in 1971. It covers 100 organizations worldwide providing 141 information systems or services that produce machine-readable data bases. Fifty-six of these data base producers offer their tapes on a lease or purchase arrangement. Most of the remaining 52 data base producers offer searching services.

The *Handbook of Data Processing for Libraries*, by Becker and Hayes, contains a useful inventory of data bases plus a discussion (Chapter 19) of automated information services and machine-readable data bases.

The *Encyclopedia of Information Systems and Services*, edited by Kruzas et al. (published in 1973), describes over 150 organizations which produce or use machine-readable data bases.

Interactive Bibliographic Search: The User/Computer Interface, edited by Walker, gives some good background information on data base advantages, successful usage, attitudes of users and some representative success stories. Published by AFIPS press in 1971, it still contains worthwhile reading material.

Appendix B

REPRESENTATIVE VENDORS OF DATA BASE SERVICES

1. Analytical Methodology Information Center
Battelle Columbus Laboratories
505 King Avenue
Columbus, Ohio 43201

Mr. Robert L. Little, Project Leader

2. Air Pollution Technical Information Center
National Environmental Research Center
Environmental Protection Agency
Research Triangle Park, North Carolina 27711

Mr. John Knight

3. Central Information Reference and Control System - On-line
Department of the Air Force
Headquarters, Foreign Technology Division
Wright Patterson Air Force Base, Ohio 45433

Mr. James M. Shawley

4. ENVIRON
Data Systems Branch
Environmental Protection Agency
Washington, D. C. 20460

Ms. Marguerite Hall, Project Officer

5. National Library of Medicine
Library Operations, Assoc., Director for Library Operation
8600 Rockville Pike
Bethesda, Maryland 20014

Dr. Joseph Leiter

6. U.S. Department of Commerce
National Technical Information Service
Springfield, Virginia 22151

Mr. Edward J. Lehmann

7. Lockheed Palo Alto Research Laboratory
3251 Hanover Street
Palo Alto, California 94304

Ms. Frances L. Grant

8. Science Information Association
3514 Plyers Mill Road
Kensington, Maryland 20795

Dr. Robert Landau

9. Smithsonian Science Information Exchange
1730 M Street, N.W., Suite 300
Washington, D. C. 20036

Mr. Lawrence Winston

10. Systems Development Corporation
2500 Colorado Avenue
Santa Monica, California 90406

Dr. Carlos Cuadra

11. Solid Waste Information Retrieval System (SWIRS)
Office of Solid Waste Management Programs
Room 631, 1835 K Street, N.W.
Washington, D. C. 20460

Mr. John Connolly

Appendix B - Continued

12. Informatics, Inc. (TOXLINE)
6000 Executive Boulevard
Rockville, Maryland 20852

Mr. Marc Bayer

13. Water Resources Scientific Information Center
Office of Water Resources Research
U.S. Department of the Interior
Washington, D. C. 20240

Mr. Raymond Jensen

14. Toxicology Information Response Center
Oak Ridge National Laboratory
P. O. Box Y
Oak Ridge, Tennessee 37830

Mr. Robert Beauchamp, Director

15. Nuclear Safety Information Center
Oak Ridge National Laboratory
P. O. Box Y
Oak Ridge, Tennessee 37830

Mr. William Cottrell, Director

16. Biological Abstracts
BioSciences Information Services
2100 Arch Street
Philadelphia, Pennsylvania 19103

Mr. William Hoida

17. Federal Aid in Fish and Wildlife
Denver Public Library Service Building
2100 West Mississippi Avenue
Denver, Colorado 80223

Ms. Barbara Wagner

Appendix B - Continued

18. IIT Research Institute (Illinois Institute of Technology)
Computer Search Center
10 West 35 Street
Chicago, Illinois 60616

Mr. Peter Schipma

19. University of Georgia
532 Hartford Building
100 Edgewood Avenue, N.E.
Atlanta, Georgia 30303

Mrs. Margaret Caughman

or

University of Georgia
Office of Computer Activities
Computer Services Division
Athens, Georgia 30601

Mr. John Edwards

20. Ohio State University
Mechanized Information Center
10 Lazenby Hall
1827 Neil Avenue
Columbus, Ohio 43210

21. Lehigh University
Mart Library
Bethlehem, Pennsylvania 18015

Dr. Donald Hillman

THE NATIONAL TRANSLATIONS CENTER

Lois E. Godfrey
Assistant Head Librarian
University of California
Los Alamos Scientific Laboratory
Los Alamos, New Mexico 87544

ABSTRACT: A description is given of the National Translations Center, its history, collection, services and funding. Its relationship to other sources of translations is discussed. The involvement of the Special Libraries Association in the current financial problems of the Center is described, and possible courses of action in behalf of the Center are mentioned.

I. THE NATIONAL TRANSLATIONS CENTER: WHAT IT IS, AND WHAT IT ISN'T.

The National Translations Center (NTC) is the largest institution in the United States for information concerning translations into English from the world literature in the natural, physical, medical and social sciences. Note the plural form of the word, Translations in its name. The Center deals only with translations; it does not engage in the activity of translation.

NTC is a unit of the John Crerar Library in Chicago, funded in part by John Crerar, in part by libraries which purchase its publications and services, and, until recently, in part by the National Science Foundation. Operation of the Center costs about $150,000 per year.

Private companies, individuals, trade organizations and government agencies all contribute translated documents to the NTC. Many organizations donate all of their translations; a few industries are exceptionally well represented in the collection because active research and development organizations within the industry have discovered that useful translations are available at NTC, and they contribute more in the same field. The name of the contributor of each translation is removed before the translation is processed, so that competitors cannot identify each other's contributions and fields of current interest.

The number of translations now available at NTC is over 200,000 of which over 17,000 are patents. In addition, there are records of the location of another 200,000 available from other sources. These translations into English are from 36 languages, with a majority from the Soviet Union, Japan, Germany, Italy, and various east European countries. About 5,000 translations were contributed to the Center last year; 13,000 were cataloged and indexed. The value of the translated material is estimated to be about $25 million.

All of the translations at NTC, and all those it learns about, are indexed by author and source of original publication (journal citation, patent number, etc.) These indexes enable the staff to answer about 9,000 inquiries a year.

When a copy of the translation exists at NTC, it is supplied, for a fee, to the requester. When another source of the translation is known the source is identified for the requester. When no source is known, the requester is so notified.

One very important part of NTC service is the publication of the now-monthly Translations Register-Index, which lists the newly-available translations by subject, and by the source of original publication (citation). A subscription to this periodical will keep one abreast of newly translated information in his science or profession.

II. HISTORY OF THE NATIONAL TRANSLATIONS CENTER.

NTC has evolved into its present important role from a small start in 1946 when the Science-Technology Division of the Special Libraries Association (SLA) began to collect and catalog unpublished translations. It was then, and still is, a cooperative effort, in that those who use the collection also contribute to it.

In 1968 SLA relinquished its sponsorship to the John Crerar Library. At that time, partial funding was obtained from the National Science Foundation (NSF) and there was no reason for SLA to be a middleman between NSF and John Crerar, the operating agency.

Interest in the Center has grown to the point where many organizations are now represented on an Advisory Board which offers guidance to the Center staff. These organizations include: American Chemical Society, American Geological Institute, American Institute of Chemical Engineers, American Institute of Physics, American Library Association, American Mathematical Society, American Nuclear Society, American Patent Law Association, American Society for Information Science, American Translatiors Association, Association of Research Libraries, Federation of American Societies for Experimental Biology, Instrument Society of America, Medical Library Association, and Special Libraries Association.

It was understood that NSF funding would not continue indefinitely, and some steps were taken toward making NTC self-supporting. However, NSF funding was abruptly terminated last fall, so the Center is now operating at half-staff, and Translations Register-Index is published half as frequently as in 1972.

III. HOW NTC RELATES TO OTHER SOURCES OF TRANSLATED MATERIALS.

NTC is a primary locating service for translations. It sells copies of those in its collection. It knows about an equal number elsewhere, and refers requesters to the appropriate source which might be:

A. Independent/Commercial Translators.

Many independent/commercial translators send NTC a notice of the translations that they have made, and which are available from them. NTC includes a record of these in its indexing system.

B. National Technical Information Service (NTIS).

This agency of the U. S. Department of Commerce is the source of many translations paid for by the federal government, including those of the Joint Publications Research Service (JPRS) which is a very active translating agency. NTIS is also working toward self-support, but is presently heavily subsidized. Translations are a small part of the NTIS collection, and, as is true of government reports and other items in its collection, saleable items are sought out for announcement and indexing; some items thought not to have a market are never announced. Translations which are announced in NTIS Government Reports Announcements are indexed by author and subject, but not citation, in Government Reports Index. NTIS has no patent translations; translations made by or for the Patent Office are sent to the National Translations Center. Not all other government agencies send their translations to NTIS, either. One agency regularly sends its translations only to England for deposit.

C. Technical Information Center of the Atomic Energy Commission (TIC).

The TIC arranges for translations of books, journals, and other publications of AEC-wide interest; it acquires translations, both AEC and non-AEC sponsored, within the subject scope of Nuclear Science Abstracts (which it publishes), and attempts to decrease duplication of translations by coordinating translation projects carried on by the Commission and its contractors. Copies of TIC's translations are sent to NTIS for sale, and catalog cards for them are sent to NTC, the Central Intelligence Agency, and CID-Transatom in Luxembourg. NTC includes a record of these in its indexing system. TIC announces all in-process and completed translations in the *USAEC Translation List*. AEC contractors are expected to contribute their translations to TIC, and many also send a copy to NTC.

D. British Library Lending Division (BLL) formerly the National Lending Library (NLL).

The BLL collects translations into English produced by British government organizations, industry, universities and learned institutions. These are listed in *BLL Announcement Bulletin*. They are indexed at the BLL, but no published index is available. BLL cooperates with NTC in notifying it of translations in its system, and by providing copies of approximately 80% of its translations to NTC for incorporation into the Center's collection and indexes. The other 20% are incorporated into the NTC index only.

E. Others.

Some cooperation in notification of translations available is also carried out with the National Research Council of Canada, the European Translations Centre in the Netherlands, the Commonwealth Scientific and Industrial Research Organization in Australia, and the Indian National Scientific Documentation Centre in Delhi.

IV. WHY THE RIO GRANDE CHAPTER OF SLA BECAME INTERESTED IN THE FINANCIAL PROBLEMS OF THE NATIONAL TRANSLATIONS CENTER.

Many members of the Rio Grande Chapter of SLA, which covers New Mexico, Arizona, and parts of southwest Texas, are employed in scientific or technical research establishments. We encounter requests for translations of foreign materials as a regular part of our daily work. We find searching for the existence of translations time consuming and often frustrating, especially when we are looking for a translation of something several years old. We decided that we would like to talk about our problems with others who have the same experiences, and so set up a Regional Workshop on Translation Services in Libraries, which was held in April, 1973. Knowing the value of NTC, we asked its director. Mrs. Ildiko Nowak, to participate. We then found out about the funding cut (no travel money!). We paid her expenses, and she did attend the workshop.

The fifty-eight participants were really concerned with NTC's plight, and urged the Chapter, as organizers of the workshop, to bring this situation to the attention of SLA. At the last workshop session there were several proposals for action. I acted as recorder of those suggestions, and with the Chapter's approval, followed up in presenting the matter to SLA's Board of Directors and Advisory Council at the annual conference in Pittsburgh in June.

We asked specifically for the formation of a special committee on translation problems, to focus the efforts of concerned members on the maintenance of the National Translations Center and on related matters.

That committee was appointed in August. Its chairman is Betty Brociner of MIT Lincoln Labs. Other members are Elizabeth Kraus of Eastman Kodak, Evaline Neff from the Rochester Regional Research Library, Calla Ann Pepmueller of Sandia Labs., and myself. Other members or consultants to the committee may be added. The chairman is in touch with NTC in the persons of William Budington, Director of the John Crerar Library, and Mrs. Nowak.

V. WHAT NEXT?

The SLA Special Committee on Translation Problems will meet, and will consider possible solutions to the financial crisis at NTC. Among the possible solutions will be these suggested by the regional workshop participants:

- a membership system for NTC
- higher charge for publications and services
- publicizing the problem
- publicizing the Center
- increasing the input of federal government sponsored translations to NTC
- contractual arrangements for translation handling and/or indexing.

I would be happy to hear your suggestions; I would be happier still if you went back to your libraries and found all the translations you've had made but haven't previously shared with anyone, and bundled them off to NTC for their collection ... and if you will pick up an order blank and subscribe to Translations Register-Index, which you will find an invaluable help with translation searching, and helpful for current awareness of foreign literature, too.

Why Multiple Media?

James A. Greenhalgh
Fort Worth District, Corps of Engineers

Abstract

What is media? Is it necessary that librarians become acquainted with and incorporate various types of media in Federal Libraries? This discussion will include these questions by a review of the information explosion, current information, and media effect. Some other aspects of media will briefly be covered.

In delivering this message on multimedia, the panelist feels that those participating should come to an understanding of the meaning of "multimedia." What does this word mean to you? Do you have the same feeling for this word as the panelist and the other librarians in the room? The basic meaning of this word is probably very similar to each of us. When we start getting into a deeper meaning, our experience and background start playing a part as to how we really feel about multimedia. Multi means many, and media is a conveyor of a message. In putting these two definitions together we have, "conveying a message in many ways." To come to a similar understanding of multimedia, the panelist will present some illustrations using the overhead projector. These illustrations will show how two people can communicate, and how objects or things can convey messages to an individual or group. In our learning process we use our five senses. Our senses tell us various things, but we are not always tuned into the things they are telling us. As we look at questions and try to vividly portray answers to our patrons, what type of media can we use that will give the greatest effect?

This overhead transparency called The Cone of Experience will show us one of the ways we can sharpen up the senses of those patrons who ask questions.[1] It can be seen that the written or spoken word doesn't have too much effect on the learner. As we go down through the Cone of Experience the retention rate and learning capability enlarges. In telephoning to get permission to use this information, it was found that the Cone of Experience is a very popular and important item. The publishing company charges $50.00 for those who use this illustration. As can be seen by the chart, we learn best when we have a sound and sight presentation such as a movie or audio film strip.

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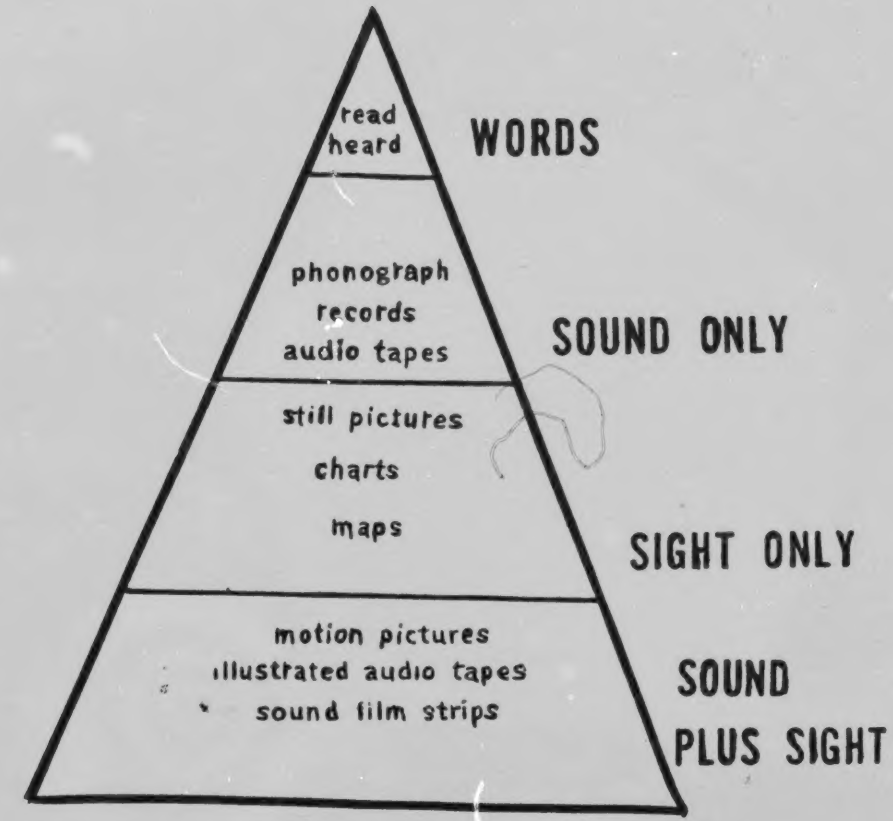
[1] Dale Edgar, Audiovisual Methods in Teaching. (New York: Holt, Rhinehart, and Winston Inc., 1954), p 43.

CONE OF EXPERIENCE


read
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phonograph
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charts
maps
SIGHT ONLY
motion pictures
illustrated audio tapes
sound film strips
SOUND
PLUS SIGHT

Adopted - Used by permission of Holt, Rinehart and Winston, Inc.

The transparency we have seen has brought out various types of media. There are many other types of media which may be applicable to Federal libraries. Cassette tapes and recordings have possibilities. Cassette players and tapes could be checked out by our traveling patrons. They could learn about their particular field of study while traveling along in their car. What about old ragged maps that our patrons feel are priceless? These maps can be preserved like this example. Chartex dry mount press is another good way to preserve maps. Microforms are another source of media Federal librarians are going to be confronted with. Most of us have probably had some dealings with them already. This panelist took the time to telephone the Naval Publications Center to ask about microfiche being used for military and Federal specifications. The Naval Publications Center is presently studying the proposed usage of microfiche. They will notify the Department of Defense in the near future as to their decision. The Naval Publications Center would appreciate the views and opinions of Federal librarians in regard to this proposed microfiche change. Pictures are a vital part of our library. Each month we spotlight a different Fort Worth District activity on our library bulletin board. There are various multimedia materials and equipment that could be used in our Federal libraries. We as librarians need to be innovative and come up with the multimedia that will best suit out particular library.

In obtaining materials for the library, we need to know what the objectives of our parent organizations are. Library materials that do not have interconnection with the objectives of the parent organization should not be obtained for the library. The Federal library and librarian that give the best service will not be concerned about having the largest computer. The real concern will be in understanding the objectives of the parent organization, understanding the user, and communicating to that user the available resources which are ready for him at the library.

It is a great privilege to live in this time and age and be associated with the profession which is so fully engrossed with information. In a study done by Dr. Jack B. Trunnell while he attended Brigham Young University, he demonstrated how human knowledge is accumulating. This transparency gives the results of the study.[2] Books are great and this panelist loves to read good books, but books are not always the best informational source. One of the great disadvantages of books is that the material in them is out

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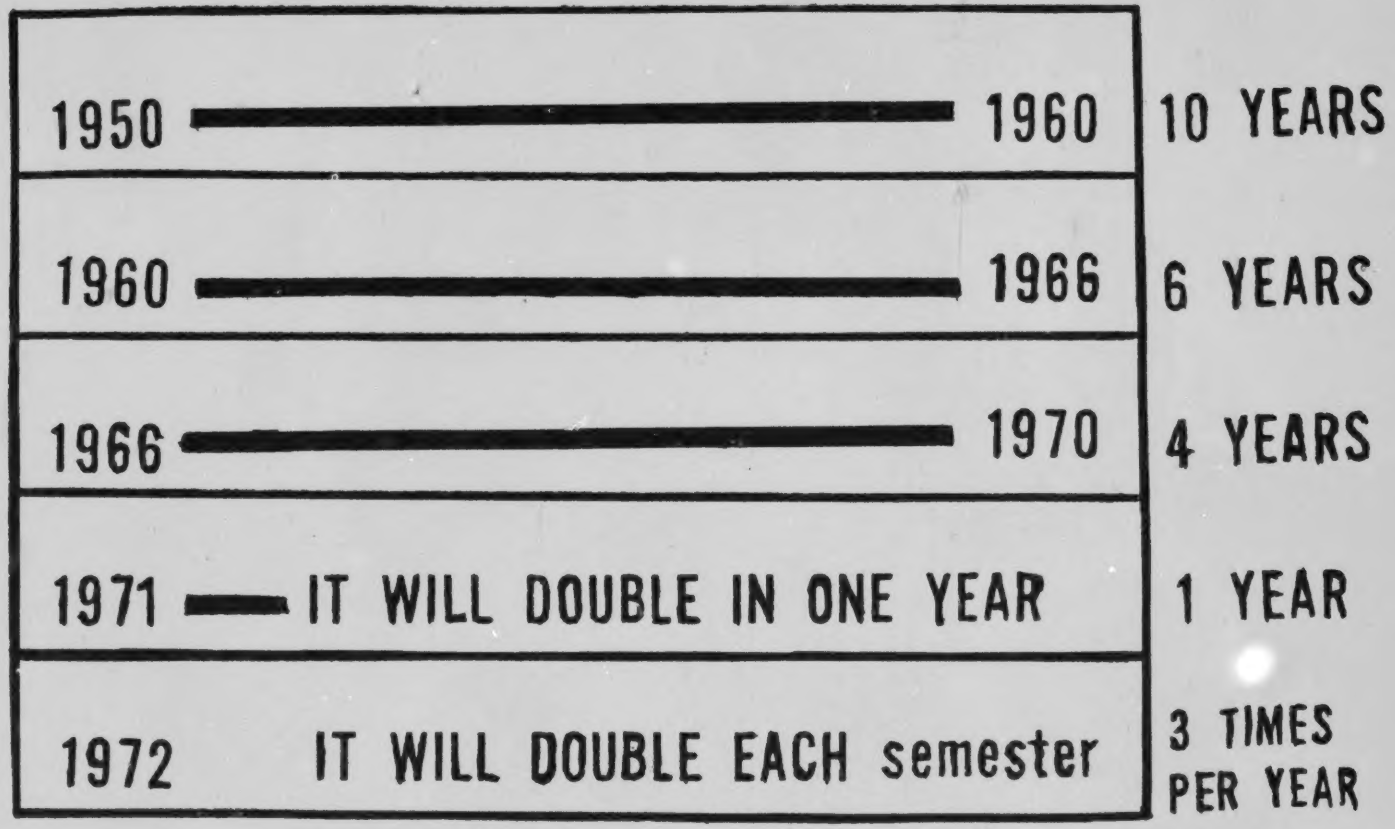
[2] Dr. Jack B. Trunnell, Something New Under the Sun. (Provo: Brigham Young University), p 2.

ACCUMULATIVE KNOWLEDGE
OF
THE HUMAN RACE



Used by permission of Dr Jack Trunnell

SELECTION CRITERIA

AUTHENTICITY

accurate

COST

expensive – cheap

INTEREST

intellectual challenge

LIBRARY POTENTIAL

flexible

ORGANIZATION

development

PHYSICAL CHARACTERISTICS

durability

SCOPE

coverage

TECHNICAL ASPECTS

tone-color

TIMELINESS

delivery time

of date when they are published. Three large scientific book publishers were asked how long it takes to publish a book. If a publisher prints the author's manuscript it takes about two months to publish. Going through the usual processes it takes from nine months to a year to publish a book. An interesting sidelight concerning publishing was found out. Many of the publishers are sending their book manuscripts overseas to have them printed. The labor is cheaper. Magazines, conference proceedings, mircoform, and telephone conversations are some of the ways the most current material can be obtained.

After we have made a decision as to a type of material that is to be incorporated in the library, are there any other criteria we need to look at before we obtain it? Some of these criteria are taken from the book Developing Multi-Media Libraries.[3] This transparency shows the type of criteria that should be considered when obtaining our material for the library. All of the criteria does not apply to every situation. Speed may be a primary need for one article and quality may be of greatest importance for another item.

Storage and retrieval of multimedia is another great challenge to librarians. There are some exciting things happening with the computer. The computer can be programed to index by author, subject, and originator, or almost any other way. This operation, at the present time, may be too costly for a small or medium sized library. However, almost all of our organizations now have computers that are available to us. Storage and retrieval is a very important aspect of the library process. Librarians get bogged down in the mechanics of processing the materials, but it is a necessary function.

This great age we live in has a "speed up", "get with it" tenor. Information and knowledge are coming to us at a prodigious rate. In order to channel the knowledge wave instead of damning it, we as Federal librarians need to incorporate those multimedia materials that will add to our efficiency and bring greater service to our parent organization. Our motto should be "the right media to the right person at the right time." Multimedia has qualities which books do not possess. Books have qualities that multimedia does not. We need both. A real need exists for multimedia and people who can control it. The librarian's background of storage, retrieval, and service makes him the ideal person. Our lack of interest and the need for multimedia specialization has brought about a void. This void is being filled by audio-visual personnel. If we as librarians don't get on the band wagon, we will be tenders of books instead of being providers of information.

---

3. Warren B. Hicks and Alma M. Tillen, Developing Multi-Media Libraries. (New York: R. R. Bowker, 1970) pps 16-18.

BIBLIOGRAPHY

Dale, Edgar. Audiovisual Methods in Teaching. New York, Holt, Rinehart, and Winston Inc., 1954.

Grogan, Denis. Science and Technology: An Introduction to the Literature. Hamden, Shoe String Press, 1970.

Grove, Pierce and Clement, Evelyn. eds. Bibliographic Control of Nonprint Media. Chicago, American Library Association, 1972.

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Martin, Lowell A. "The Changes Ahead," Library Journal, XCIII (February 15, 1968), 716.

Topper, Louis. "Some Problems and Pointers for Those Introducing AV Materials into the Library." Wilson Library Bulletin (September, 1972), 42-45.

Trunnell, Jack C., Dr. Something New Under the Sun. A paper presented at Provo, Brigham Young University (n.d.).

Voos, Lowell A. "The Information Explosion or Redundancy Reduces the Charge!" College and Research Libraries, XXXII (January, 1971), 7-14.

APPENDIX I

SOURCES OF FREE MATERIALS

Educators Progress Service, Randolph, Wis. 53956. This company published annually several guides which are free or available for loan free of charge.

Free and Inexpensive Learning Materials. Division of Surveys and Field Services, George Peabody College for Teachers, Nashville, Tenn., 37203.

Free Learning Materials for Classroom Use, by Guy Wagner & Dorlan Mork. Extension Service, State College of Iowa, Cedar Falls, Iowa, 50613.

Sangamon Source Series, Villa Grove, Ill. Any of the following titles may be procured for a small amount of money. They have such publications as the Free Materials About Our National Parks, Forests, and Historic Sites; Free Materials of Our Fifty States; Free Posters, Charts, and Maps; and Free Sources of Science Materials.

Sources of Free and Inexpensive Educational Materials. Esther Dever. P.O. Box 186, Grafton, W. Va.

Sources of Free and Inexpensive Teaching Aids. Bruce Miller Publications, P. O. Box 369, Riverside, California 92502.

Sources of Information and Unusual Services. Informational Directory Co., 200 West 57th St., New York, N.Y. 10019.

What's Free. Sangamon Source Series, Villa Grove, Ill. Quarterly, $3.00. Describes all kinds of free materials currently available for schools and libraries.

NOTE: Many producers of audiovisual materials want to work closely with librarians so that they can find out what materials would be the best. They will let librarians try out some of their products.

Foreign Embassies have free materials.

Many of the large companies will issue free materials upon request.

APPENDIX II

MULTIMEDIA BIBLIOGRAPHY

(Stars represent those monthly issues which may be of interest to Federal librarians.)

* Abrams, Nick. Audio-Visual Resource Guide. 9th ed. New York, Friendship Press, 1972.

* Brown, James W. Audiovisual Instruction: Media and Methods. 4th ed. New York, McGraw-Hill Book Co., 1973.

* Dekieffer, Robert E. and Cochran, Lee W. Manual of Audio-Visual Technique. 2d ed. New York, Prentice Hall, 1962.

* Diaz, Albert James. The Subject Guide to Microforms in Print. Washington, D.C., Microcord Education Inc., 1962.

* Evenson, Dean & Shamberg, Michael eds. Radical Software and the Realistic Hope Foundations. New York, Gordon Publishers, 1972.

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* Grove, Pierce and Clement, Evelyn. eds. Bibliographic Control of Nonprint Media. Chicago, American Library Association, 1972.

* Hicks, Warren B. and Tillen, Alma M. Developing Multi-Media Libraries. New York, R. R. Bowker, 1970.

* Kemp, Jerome E. Planning and Producing Audio-Visual Materials. San Francisco, Chandler Company, 1968.

* Limbacher, James L. Reference Guide to Audiovisual Information. 1st ed. New York, R. R. Bowker, 1972.

* McCarty, H. and Hartsel, Horace C. The Cooperative Approach to A-V Programs. Washington, D.C. DAVI of NEA, 1954.

* Martin, Lowell A. "The Changes Ahead," Library Journal, XCIII (February 15, 1968, 716.

* Prostano, Emmanuel T. Audiovisual Media and Libraries: Selected Readings. Littleton, Colorado, Libraries Unlimited, Inc., 1972.

* Topper, Louis. "Some Problems and Pointers for Those Introducing AV Materials into the Library." Wilson Library Bulletin, (September, 1972) 42-45.

* Trunnell, Jack B., Dr. Something New Under the Sun. A paper presented at Provo, Brigham Young University (n.d.).

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* Voos, Lowell A. "The Information Explosion; or Redundancy Reduces the Charge!" College and Research Libraries, XXXII (January, 1971), 7-14.

* Wittich, Walter A. and Schuller, Charles F. Audio-Visual Materials: Their Nature and Use. 5th ed. New York, Harper and Row, 1973.

Themes of: AUDIOVISUAL INSTRUCTION ISSUES
Washington, D.C.: DAVI of NEA (Monthly Periodical)

1973 Jan	Educational Charge/Renewal
* 1973 Feb	Introducing the National Media Center for Special Education
1973 Mar	1973 Las Vegas Convention - A Preview
1973 Apr	Learning Resources for Career Education
* 1973 May	Media Personnel Development
1973 Jun-Jul	Las Vegas Convention

1972 Jan	Learning Outside the Schools
* 1972 Feb	Instructional Technology
1972 Mar	National Convention (Minneapolis)
* 1972 Apr	Telecommunications
* 1972 May	Visual Literacy
1972 Jun-Jul	Convention 1972
1972 Sep	Schools Without Walls
1972 Oct	Instructional Development by Design or by Change?
1972 Nov	Learning Resources in Minorities Studies
* 1972 Dec	Learning Resources and Evaluation

1971 Jan	Media and Social Concerns
* 1971 Feb	Managing the Information Explosion
1971 Mar	Teacher Education
1971 Apr	Instructional Development and Currcula Integration
* 1971 May	Public Relations
1971 Jun-Jul	Audiovisual Instruction Meetings
1971 Sep	Consummerism
1971 Oct	Health Profession - Education
1971 Nov	Education - Technology the Cost of Education
* 1971 Dec	Instructional Development an Emerging Process

Appendix II

1970 Jan	Davi and the Decade Ahead
* 1970 Feb	Technology and Self-Instruction
1970 Mar	Media to Teach International Development
1970 Apr	Media and Vocational Education
1970 May	Professional Education
1970 Jun-Jul	1970 Davi Detroit
* 1970 Sep	Cassettes
1970 Oct	Facilities for Learning
1970 Nov	Reading
1970 Dec	Media Program Management

1969 Jan	Professional Education
1969 Feb	Mathematics through Media
1969 Mar	Oregon Beckons (convention)
1969 Apr	Teaching Social Studies with Media
1969 May	How One School System uses Media
1969 Jun-Jul	1969 Davi Convention Report
* 1969 Sep	Instructional Media Centers
* 1969 Oct	Visual Literacy New Developments
1969 Nov	The Role of Media in Special Education
1969 Dec	Media and the Culturally Different

1968 Jan	Media and the Humanities
* 1968 Feb	Industry and Education (Pre-convention Issue)
* 1968 Mar	Technology and Curriculum Planning
1968 Apr	Local Production
1968 May	Foreign Language
1968 Jun-Jul	Report 1968 DAVI Convention
* 1968 Sep	New Products and Ideas
1968 Oct	New Teaching Strategies - Development
1968 Nov	New Teaching Strategies - Implementation
* 1968 Dec	Tele Communications

* 1967 Jan	Selection and Evaluation of Media
* 1967 Feb	Functions of the Media Specialist
1967 Mar	Convention Issue
* 1967 Apr	Computer Science; Automated Cataloging and Booking
1967 May	Mediated Self-Instruction
1967 Jun-Jul	Convention Report
* 1967 Sep	Creative Utilization of Media
1967 Oct	IMC: Philosophy, Facilities, and Design
1967 Nov	Education Television
1967 Dec	Media and Teacher Education

Appendix II

1966 Jan	Research and Development
1966 Feb	Research and Development, II
1966 Mar	Preconvention Issue
1966 Apr	Media and Adult Education
1966 May	History and Geograph (tentative)
1966 Jun-Jul	Convention Issue 1966

1965 Jan	Media and the Education of the Disadvantaged
1965 Feb	Media's Influence on School Design
1965 Mar	The Media Specialist: Agent and Object of Change: Preconvention Issue; includes AV Name Change
1965 Apr	Audiovisual Instruction and the Language Arts
1965 May	The Systems Approach
1965 Jun-Jul	Convention Report 1965; The Media Specialist; Agent and Object of Change
1965 Sep	Teacher Education
1965 Oct	The New Educational Legislation; Federal Legislation Affecting AV Instruction
1965 Nov	AV Programs at the Building Level
1965 Dec	Professional Education and Certification

* 1964 Jan	How Effective Are Our AV Programs
1964 Feb	Rochester, N. Y.: Preconvention Issue
* 1964 Mar	Trends in New Media Materials
* 1964 Apr	Trends in New Media Equipment
1964 May	Media Evaluation: Programed Instruction
1964 Jun-Jul	International Cooperation
* 1964 Sep	Convention Report 1964: Creativity and Instructional Technology
* 1964 Oct	Trends in Presentational Methods
* 1964 Nov	AV Administrative Patterns and Operational Procedures
1964 Dec	Social Studies

* 1963 Jan	Role of Media; Guidance in a New Age: the Denver Convention
1963 Feb	Programed Instruction
1963 Mar	Calling all DAVI Hands to Denver: Preconvention Issue
1963 Apr	Tremors in the Ivory Tower: Innovations - Systems Approach Rapid Tempo Learning Response Systems
1963 May	Local Production
1963 Jun	Convention Report 1963: Patterns of Responsibility for Communication

Appendix II

1963 Sep	The Big Picture: DAVI, the Professional Association
1963 Oct	Resources for Independent Learning
1963 Nov	The AV In-service Program: A Channel to the Classroom
* 1963 Dec	Audio Materials

1962 Jan	Learning Theory
1962 Feb	Preconvention Issue; Curriculum
1962 Mar	The New Mathematics
* 1962 Apr	Tool of the Times; Overhead Projection and Transparencies
1962 May	Spring Roundup; Mixed Themes
1962 Jun	Convention Report 1962: Our Educational Challenge in the Face of Current World Forces
1962 Sep	AV Specialist Professionalization
1962 Oct	The New School (at the Building Level): Includes Instructional Resources Centers and Library Curriculum Centers
1962 Nov	Mixed Themes: Breaking from Tradition: Includes Comments on Progress (Teacher Education, Peace Corps) and a Bibliography of Language Teaching and AV
1962 Dec	Mixed Theme: Educational Television

* 1961 Jan	The Past is Prologue: History and Future of the AV Field Includes New Ideas in Film and Textbook Publishing
1961 Feb	What's New in Teacher Education
1961 Mar	Preconvention Issue: Why Go to Convention: Why Join DAVI?
1961 Apr	Self-Instructional Devices
1961 May	Language Laboratory Sketchbook
1961 Jun	Convention Report 1961: Assignment 1970
1961 Sep	Portrait of DAVI
1961 Oct	AV and the Social Studies
1961 Nov	Experimentation at the Grassroots; Includes Automation, Programed Learning, Classroom Simulators, ETV, and Closed Circuits for Tapes
1961 Dec	Standards and Procedures

1960 Jan	Year II of NDEA
1960 Feb	Technology Ahead
1960 Mar	Fishing for Ideas (Mixed Theme - Mostly Visual)
1960 Apr	Mixed Theme: Includes Focus on Vision and AV in India

Appendix II

1960 May	Organizing for Audiovisual Services
1960 Jun	Convention Report 1960: Concentrating Educational Forces
1960 Sep	School and Community
1960 Oct	How TV Changed the Role of the AV Specialist
1960 Nov	The Teacher Speaks: Includes a Section on Language Teaching
1960 Dec	Instructional Materials Centers

1959 Jan	Special Issue: Teacher Education
1959 Feb	Audiovisual Experiences for the Exceptional Child
1959 Mar	Preconvention Issue: Includes a Section of ETV
1959 Apr	Summer School (Mixed Theme): Includes Projectors and Communication
1959 May	Worldwide AV
1959 Jun	Convention Report 1959: Quality, Quantity Education
1959 Sep	What Do We Know about Teaching Modern Foreign Languages?
1959 Oct	Building AV into the Curriculum
1959 Nov	ETV '59 - '60
1959 Dec	Mixed Theme: Includes Sections on TV and Team Teaching and the Library and AV

Federal Libraries and Data Bases --
Current Activities and Trends

by
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Abstract

Federal libraries are in the vanguard of the development and use of machine-readable data bases. Extension of such use, to further the efficiency of library operations and the scope of services to users, is being fostered by cooperative undertakings. Examples of such activities include the Science Information Association program to provide on-line access to various data bases, and the Federal Library Cooperative System Work Group's experiment with on-line access to the shared cataloging data base at the Ohio College Library Center.

Introduction

My **emphasis** this morning will be on Federal library experiences with data bases, in terms of past and current activities, and a look at trends for the future. I will not attempt to be exhaustive in my treatment of such a broad subject area. Rather I will try to give some indications of where we've been, and are, and might go.

Federal libraries and information centers were among the early developers and users of machine-readable data bases. The National Library of Medicine's MEDLARS pioneered tape services in 1963. The Defense Documentation Center, National Technical Information Service, Atomic Energy Commission and National Aeronautices and Space Administration have been cooperating for some years in the exchange and pooling of data bases. The NTIS files contain unclassified reports from government sources and from industrial firms and academic institutions performing government-sponsored work. The ERIC system, sponsored by the Office of Education, covers materials in education and educational research. The National Agricultural Library CAIN (Cataloging and Indexing) system is now available. Smithsonian Science Information Exchange indexes current research projects in the life, physical, social and engineering sciences. Several of these services were described during the First Annual Interagency Workshop last year, you may remember.

And of course, the Library of Congress has been distributing MARC tapes since March 1969. The service began with English-language monographs, and is being extended to cover other materials as rapidly as possible.

Use of Data Bases

Federal librarians have pioneered in the use of these data bases and others supplied by professional societies and commercial organizations. Again recalling last year's Workshop presentations, I summarized the use of machine-readable data bases by respondents to the survey of Federal libraries that I reported on in my presentation there: "A relatively high proportion (27 per cent) of the survey respondents said they use information retrieved from machine-readable data bases to answer some user inquiries. Sixteen of these respondents have terminals on-line to the data bases, the rest submit written, formatted search requests." The data bases so used include MEDLARS (used by 139 respondents), DDC (122 users), NASA RECON (53 users), the Chemical Abstracts data base (33 users), that of Engineering Index (30 users), MARC records (22 users), and ERIC files (16 users). As I voted at that time, since the Federal libraries responding to the survey are not large libraries, "they must be considered in the vanguard in library use of these tools."

Certainly a vanguard experimenter is the library at the Boulder Laboratories of the Department of Commerce. Joan Maier reported on their experiences in using data bases for literature searches. She pointed out, "These services are powerful tools when used correctly...The economics of "retailing" these services will have the effect of making them available to every federal library which takes the initiative to use them. The cost barrier will disappear." (1)

Science Information Association

One of the means by which these cost barriers can be lowered, if not entirely disappear, is through cooperative activities or organizations which seek to share the costs of establishing and maintaining data bases among a number of users. The Science Information Association (SIA) was created as a non-profit cooperation to provide such an organization vehicle whereby, Government organizations and individuals, for example, may be provided direct access through remote terminals to an information bank consisting of a group of major data bases. The program provides access through computer systems at Battelle Memorial Institute Columbus Laboratories and

Informatics, Inc. to the files of the NTIS, Chemical Abstracts Condensates and NLM Toxline. (The NTIS and CAC bases are at Battelle; Informatics operates TOXLINE). Local dial-up telephone access to the Battelle and Informatics systems is available in over thirty-five major United States cities through the facilities of the Tymshare Corporation at significantly lower costs than normal long-distance telephone rates.

The bibliographic material includes accession numbers, authors, titles, keywords, subject categories, patent numbers, source references, etc. The NTIS data base dating from January, 1970 to the present contains about 180,000 records. The CAC data base dating from July, 1970 to the present contains about 900,000 records. The TOXLINE data bases comprised of 6 toxicologically related data bases dating from various times between 1965 to 1973, contains about 280,000 records, including, in most cases, fully searchable abstracts and Chemical Abstracts Registry Numbers. Each data base is updated on a regular, periodic bases. Access to TOXLINE is also available directly through informatics.

The National Bureau of Standards in Gaithersburg is a participating member of the SIA. At last year's workshop, NBS sponsored a demonstration of on-line access via BASIS-70, the Battelle system, to the NTIS data base as past of the Department of Commerce Libraries program. At that time the access was on a very experimental basis, but since then both data bases have come up at Battelle and the TOXLINE data base has been added to the service. There are now nearly a dozen users at NBS, 8-10 of whom are bench scientists.

The Office of Computer Information, Institute of Computer Sciences and Technology, is coordinating the Bureau's experiment. The initial objective is to provide to a cross-section of the NBS staff, including the Library, hands-on experience with such information resources. A longer-range purpose of the experiment is to determine the feasibility of adding NBS-created data bases to the total system.

As the SIA points out, by sharing the start-up, update and storage costs, each member receives the benefits of the service at a fraction of the cost for setting up individual services. In addition, the sharing of initial costs makes the establishment of such resources more attractive to the service organization. It is planned that, as the program proceeds, additional data bases in the fields of engineering, environment, physics, biology, education, law, etc. will be added to the information bank.

Such cooperative and coordinated activities then make the use of data bases feasible because of the significant economic benefits in cost-sharing. Libraries will, and should, be called upon to provide coordination between the user and the information facility providing on-line access to such data bases. It is a role similar to the librarians' traditional reference services but taking advantage of new tools and technologies.

Federal Library Cooperative System Work Group

Another form of cooperative and coordinated activity is to be found in the Federal Library Committee's Work Group on the Federal Library Cooperative System -- FLICS, if you will. Once more I refer to my presentation at last years' Interagency Workshop, where I described the FLC Task Force on Automation program. (2) I said that the Task Force was cooperating in a study of the technical and administrative feasibility of the concept of a centralized service operation for Federal libraries, similar to that of the Ohio College Library Center. The OCLC is a cooperative operation that is designed to be a centralized processing service. The Center now maintains MARC tapes for shared-cataloging use; member libraries input local data and receive printed catalog cards of the titles they request.

It is the thought of the Work Group that such an activity might well serve as a model from which to develop automation for smaller Federal libraries, either within a particular agency or across agency boundaries. The Department of Commerce and Department of Interior headquarters libraries are among the group of libraries in the Metropolitan Washington, D.C. area which is examining the feasibility of a centralized service operation for Federal libraries.

At this time the Work Group is pursuing two objectives: One is to draft a proposal for a planning grant for the development of a Federal Library Cooperative System. The purpose of the planning grant would be the specification of the organization and structure of the FLICS, its functions and management, the specification of a program of action (i.e., tasks in priority order) in the development of services and outputs, the specification of resources required (manpower, equipment, etc.) for reasonable operation, a calendar for their acquisition, and other elements that may be determined.

We feel that this program of cooperative effort among Federal libraries will be based initially on applications of computer, communications and information technologies and will use these technologies to enhance the missions of libraries to furnish their users with the information needed to conduct agency programs, arrive at managerial decisions, and contribute to policy making in a timely and thorough fashion.

Elements of the cooperative effort will include:
1) on-line access to computer-based files for shared cataloging of various collections: monographs, serials, technical reports, maps, audio-visual materials, etc; 2) on-line access to computer-based files for retrieval of references in answer to specific questions, for preparation of current-awareness alerting services, for compilation of special bibliographies, etc; 3) on-line access to files and programs for technical processing, for book ordering and serials subscriptions efforts; 4) generation and maintenance of statistics on these cooperative activities, to support the operations and plans of the participating libraries.

Further elements of this program of cooperative effort will in general take the form of implementing projects developed by the Federal Library Committee and its various Task Forces dedicated to specific problems of the Federal library community.

Ohio College Library Center Experiment

The second objective being pursued by the Work Group is an experimental hook-up to the Ohio College Library Center for the purpose of providing hands-on experience with shared cataloging in an on-line environment. This is not meant as a test of the OCLC system; that has already proved its feasibility and effectiveness. Rather it is a test of the concept of shared cataloging for the Federal community and a means for Federal libraries to try out on-line access to a large data base consisting of library of congress MARC records and additional MARC-type records.

The negotiations with OCLC to provide this experimental hook-up include adding the OCLC system to the Tymshare Network. This means that the test would be available to selected Federal libraries in cities throughout the United States, by means of a local phone call. Also, the Tymshare system is compatible with a wide range of terminals which means that Federal libraries having access to terminals operating within their agencies have a good chance of participating in the experiment with a minimum initial investment.

In addition, arrangements are being made for a leased-line for high speed access to the OCLC data base from the Washington metropolitan area. With the availability of this line, libraries will not be to the lower speed of transmission in which the Tymshare network operates, nor to the more restricted set of characters available on most terminals. Instead, participating libraries can access at close to the 300 character per second operating spped of the OCLC system, and with the full 192 character set of the OCLC Model 100 Beechive terminals used by the OCLC system. Those libraries in the Washington metropolitan area with large cataloging loads will benefit from this more extensive access and interaction.

The purpose of the experiment with the OCLC system is to gather data on the applicability and benefits of such systems to the spectrum of Federal libraries. We would like to plot the services necessary or desireable for a library in terms of its resources: staff, collection, usage factors, etc. The data so gathered will feed into the design and planning for FLICS, as outlined above.

Further Activities

An additional experiment we want to try, also to feed data into the long-range planning, seeks to share access to data bases for storage and retrieval purposes. The kind of access afforded by the SIA experiment at NBS, described above, is part of this interest; ina ddition, access among agencies to data bases not so broadly available will be studied.

We feel that these cooperative efforts will produce the economics of scale necessary to reduce costs, permit more services to be offered to the large multi-disciplined Federal user community, provide the benefits of cost-sharing to the participating agencies, and make available to all the resources of the many Federal libraries so involved. We are excited about the possibilities and the chance to play a role in the devleopments.

References

(1) Maier, Joan M., Data Center Services from the User's Point of View, in Proceedings of the 1972 First Annual Federal Interagency Field Librarians Workshop, Washington, D.C., September 24-28, 1972, pp. 71-75.

(2) Henderson, Madeline M., Programs and Services of the Federal Library Committee's Task Force on Automation, in Proceedings of the 1972 First Annual Federal Interagency Field Librarians Workshop, Washington, D.C., September 24-28, 1972, pp. 57-68.

GOVERNMENT DOCUMENTS - ORGANIZATION IN A FEDERAL LIBRARY

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Government documents can be organized. It is up to each of us as federal librarians to make sure that the documents from our own agency get into classification and bibliographical control systems which are designed under law to organize them.

All documents must be sent to the Superintendent of Documents to be assigned SuDoc numbers and to be indexed in the Monthly Catalog of U.S. Government Publications. Scientific and technical documents must be sent to the National Technical Information Service to be abstracted in Government Reports Announcements and to be microfiched. All documents must be sent to the Library of Congress to be made part of their collection and possibly cataloged.

As federal librarians we should not only not redo the work of our fellow feds but we should be helping our agencies obey the law. The Superintendent of Documents is required under the Printing Act of 1895 as stated in Title 44 of the U.S. Code, sections 1710 and 1711 to index federal publications. Section 1710 says, "The Superintendent of Documents at the close of each regular session of Congress shall prepare and publish a comprehensive index of public documents---The head of each executive department, independent agency and establishment of the Government shall deliver to him a copy of every document issued or published by the department, bureau, or office not confidential in character." And, section 1711 says, "On the first day of each month the Superintendent of Documents shall prepare a catalog of Government publications which shall show the documents printed during the preceding month, where obtainable, and the price."

NTIS is required under law PL 81-776, to provide for the dissemination of technological, scientific and engineering information to American business and industry and for other purposes.

The Library of Congress under law PL 90-620 is to receive not more than 150 copies of every publication issued by the government. The Library of Congress is also committed to including federal documents in the "Cataloging-in-Publication" Program. We should use our energy insisting that these agencies do their jobs rather than doing it ourselves. If we do, processing documents will cost our agencies less money.

We should all be able to answer the following questions, but I doubt that any of us can: 1) How many documents titles, (paper and microform) were published by our agency last year? 2) How many of those titles were sent to GPO, NTIS, and LC? 3) How many were actually entered into those systems? 4) How many of those titles were sent to the depository libraries?

We should accept the responsibility of our position as librarian to search out the answers to those questions. As federal librarians we owe it to our own agency and to the citizen to help get information out to people. It is impossible to do this if you don't know what your agency is publishing and are not actively trying to bring that output under bibliographical control.

The questionnaire on documents that you filled out was designed to make you think carefully about the way documents are organized, classified and cataloged in your own library. I am going to discuss each of the areas covered in the questionnaire.

Education of the staff is a very important key to organizing documents. Many librarians are afraid of government documents and, therefore, make working with them very difficult. At least one member of the staff should be responsible for documents. This person should take courses, attend workshops, and participate in meetings with others who are facing similar problems. Depository librarians have many of the same problems that we have. We should be helping each other solve them.

The efficient organization of documents means that certain decisions must be made. Where will the documents be located physically? Will they be collected in hard copy or microform? Will they be integrated into the rest of the collection or housed separately? Will they be cataloged and shelflisted? What classification system will be used? Will the indexes and bibliographies for documents be shelved separately? Will the documents be included in a computer's data base?

These decisions will necessarily be based on the availability of classification, cataloging and indexing services. Unfortunately, no system presently includes all documents. The Library of Congress only catalogs about 3000 titles a year out of about 14,000 received. That leaves over three-fourths of the titles uncataloged. NTIS indexes all the scientific and technical reports that they can obtain. GPO will index and classify any document they receive since that is their responsibility under the law. No single service will carry all materials. Both GPO and NTIS will list any classification number given them. Usually they don't have them. GPO will list the LC order card numbers. LC is the only system which usually provides a title entry. There seems to be a lack of consistent exchange of information between these agencies. We should insist that they improve their communication.

It is easier to retrieve documents if they are classified and in some type of order. Some agencies put everything into the system used for their other publications, (e.g. LC, Dewey, UDC, accession numbers, or whatever). Doing this necessitates a lot of original classification since only 3000 titles a year are included in the LC and Dewey systems. The only classification system that includes a large number of documents are SuDoc and NTIS.

Choosing the right classification system depends upon a number of factors. If there is enough staff to fully catalog each and every document then any system will probably work. If only part of the documents are cataloged and access to the rest depends upon indexing, abstracting, and listing services then the class system is very important.

The only classification systems which are consistently cited in government and non-government indexing services are SuDoc and NTIS. If another class system is used than cross-references must be provided. This takes a lot of work and most librarians fail to do it. Cross-references between class numbers can be provided by see references or by annotating the indexing services.

Classification systems are usually based upon subject or issuing body. A class system using subject as base may be inadequate if your collection is so specialized that it requires greater in-depth subject classing. You can improve access to your collection by expanding the class system or adding more subject terms. This, of course, takes time and money. Using the specialized indexing tools is one approach.

Class systems based upon issuing body provide a ready made index to agencies, sub-agencies and programs within the government. How many times has one of your users asked for a document in this fashion? "It's about microorganisms, done in 1950 or 51 by PHS." If the documents are arranged by issuing body (SuDoc) it's often faster going to the shelf than to the catalog or indexing service. SuDoc is based upon government organizational structure. For example:

EP 4.9: 1
EP = Environmental Protection Agency
4. = Air Programs Office
9: = AP series
1 = no.1 in the series

EP 1.2: Ai2
EP = Environmental Protection Agency
1. = Administrator's Office
2: = General publications
Ai2 = Cutter from the title of publication.

There are a number of other variations after the colon including; year, volume/issue number, etc.

National Technical Information Service's system is based partially on issuing body and partially on subject.

An example of issuing body is:
ORNL-NSP-EP-5
ORNL = Oak Ridge National Laboratory, Tennessee.
NSF = National Science Foundation
EP = Environmental Protection
-5 = number 5

An example of subject is:
EIS-MO-72-4513-F or D
EIS = Environmental Impact Statement
MO = Missouri
72 = 1972
4513 = number
F = Final
or D = Draft

LC, Dewey and UDC are based upon subjects. Most of you are familiar with these systems so I won't explain them.

None of these systems are ever completely satisfactory to everyone.

It is interesting to see which class system depository libraries use since they receive material from many agencies on a daily basis and have to make it available quickly.

24 libraries---no system
85 libraries---Dewey
53 libraries---Library of Congress
44 libraries---other systems
570 libraries---Superintendent of Documents Classification
240 libraries---combinations which included SuDocs

(The percentages are as follows 54.4% Superintendent of Documents, 8.19% Dewey, 5.11% Library of Congress) (1)

To sum up -- choosing the right class system depends upon:
1. Size of staff and collection.
2. Availability of classification information.
3. Class systems cited in indexing services.
4. Search approach used by librarian and users.

Cataloging as separate from classification is the next consideration. It is possible to have a class number on every document and never catalog them if you are using indexing tools as access rather than a card or book catalog.

The physical description of documents can be a very difficult and time consuming process especially if the concept of main entry is adhered to. The main entry approach for documents is no longer necessary since under computer systems there is no one main entry. It is often difficult to determine what the main entry is and therefore catalogers often delay cataloging documents as long as possible. The best approach would be to simply catalog every document under U.S., main agency, sub agency, etc., in a hierarchical fashion.

Federal documents are going to be included in "Cataloging-in-Publication" this fiscal year (1974). The purpose of CIP is to provide professional cataloging data to publishers so that the data will be printed in the book. According to Bill Gosling of the Library of Congress, "the documents will be selected agency by agency and item by item. Emphasis will be placed on those titles which have a wide range of interest and are widely acquired and cataloged by libraries as indicated by card sales. To facilitate phasing documents into the Program, agencies with centralized publication offices will be identified and contacted first to join the Program. We have learned that personal contact is essential to the smooth operation of the CIP Program and a centralized publishing office means better control of the material within an agency" (2).

CIP and documents can be a tremendous help to us as federal librarians if we make sure that the right documents are included. Dependence upon sales of LC cards is a poor indicator of future use of CIP since many of us have access to MARC tapes or use NUC to manufacture our own cards. LC and our agency publishers and printing officers should be informed immediately of our interest so the program will be of real use to us.

Norman Barbee of GPO conducted a survey of several agencies through the headquarters printing officers. The replies show a definite lack of knowledge of the needs of libraries by our printing officers. Here are the answers from Agriculture, HEW, Civil Rights Commission, Commerce, and Interior.

1. Would be helpful to the librarian.
2. The change would be too great.
3. Would prefer a card insert bound into book.
4. Added time would become too involved to accomodate CIP, a perforated card would be more useful.
5. Feel it would destroy the appearance of a special design book.
6. May not be enough room in the book.
7. Delay in service would be problem.

The answer from the Commerce Department printing officer was totally different from that of Dorothy Kaufman, head of the Census Library.

CIP will be useful to us especially if we are using SuDoc, LC or Dewey. The more documents in the system the more useful it will be. If LC were to cease trying to assign LC and Dewey numbers and simply accepted the SuDoc or NTIS number, a lot of time would be saved and many many more documents would be included. Therefore, I am suggesting that LC stop listing any number on the LC card except the SuDoc and NTIS numbers. I would further suggest that LC accept Superintendent of Documents librarians cataloging information and use it instead of their own. In essence I am urging LC, GPO and NTIS to cooperate in producing CIP for documents.

Good service to users is a direct result of good organization of material. It is easier for the user if the books are provided with identification labels, book pockets, binding, etc. It is helpful to the users if you shelve all or most of the indexing tools for documents together. These tools are more useful to your staff and users if you have regular orientation sessions on their use.

Documents in the guise of microforms are going to be of increasing concern to all of us. We probably all have microforms from NTIS and ERIC. We may have some produced by commercial publishers such as CIS and Readex. There will be many more since GPO is going to get into the microform game. The only question is how and when. These documents must also be organized. They should be indexed, abstracted, classified, etc., just like paper documents. It can be easier to get to microforms than paper if they are organized correctly. A good example of this is the collection of EPA documents which NTIS is microfiching and indexing for us. We librarians, in EPA collected all the documents (those we could find) issued by EPA, no matter what EPA's name and sent them to NTIS. NTIS along with the fiche is providing an index which will include subject, personal author, corporate author, accession number, contract number and title. The inclusion of title will be the first for a NTIS index. My only regret is that there will be no index of SuDoc numbers or LC order card numbers. I'm sure that this index and the collection of fiche will be used by many libraries throughout the country. Many of them will want a cross reference from the NTIS number to the SuDoc number especially if they don't buy the whole package of fiche and index.

All of us, especially we field librarians, get many requests from citizens. If the documents in our library, especially our agencys' documents are shelved, classified, cataloged and indexed well our work loan will be less. Our workload will be even smaller if we insist that our agencies enter their documents into systems and send them to depositories. Then we can send the citizen to a depository with no pang of conscience. We have to remember that we not only serve the needs of our agency but the needs of all citizens. Often these needs can best be taken care of by taking care of the needs of our fellow librarians and users, government or non-government.

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[1] Speech by Norman Barbee (GPO librarian) given at Federal Documents Regional Workshop, Kansas City, Mo., April 13, 14, 1973.

[2] Speech by William Gosling (CIP Program Manager) given at Federal Documents Regional Workshop, Kansas City, Mo., April 13,14, 1973.

QUESTIONNAIRE -- DOCUMENTS

Name of Library ______________________________
Address ______________________________
Person filling in questionnaire ______________________________
Date: ______________

I. STAFF

A. Number: Professional____
Non-professional____

B. How many of the staff have:
  1. Taken a documents course______
  2. Attended a documents workshop_____
  3. Read Explanation of SuDoc Classification System _____
  4. Regularly read articles on documents in professional journals______

C. How many of the staff belong to:
  1. American Library Association. Government Documents Round Table______
  2. Special Libraries Association. Government Information Services Committee______
  3. State Library Association. Documents group or round table_____

II. DOCUMENTS COLLECTION

A. Physical location of collection:
  1. All documents housed together ______________
  2. Documents divided among departments__________
  3. Documents integrated into subject areas_______
  4. Part of documents in documents department and the rest divided_________
  5. Other________________________

B. Classification system used:
  1. Superintendent of Documents________
  2. Library of Congress______________
  3. Dewey Decimal_____________
  4. Combination_____________
  5. Other__________

C. Level of processing:
  1. Physical:
    a. Property stamp_____
    b. Book pockets______
    c. Class numbers on labels______
  2. Shelf listing:
    a. How:
      1. By series____
      2. By title_____
      3. Other___________________
    b. Percentage shelflisted__________
  3. Cataloging:
    a. Type:
      1. Full______
      2. Brief_____
      3. None______

- b. Percentage of titles cataloged__________
- c. Source of cataloging information:
  - 1. Library of Congress_________
  - 2. MARC tapes________
  - 3. NTIS________
  - 4. Monthly Catalog ______
  - 5. Original_______
  - 6. Other__________
- d. Where is cataloging information kept:
  - 1. Main card catalog __________
  - 2. Separate card catalog ________
  - 3. Main and separate card catalog_________
  - 4. Book catalog_________
    - a. Generated by:
      - 1. Manual means_________
      - 2. Computer________
    - b. Format:
      - 1. Paper______
      - 2. Microform_____
- e. Have you ever or are you considering computerization of your cataloging procedures?
- f. Do you presently have an adequate staff to participate in an automation program?

III. "CATALOGING IN PUBLICATION"

The purpose of CIP is to provide professional cataloging data to publishers so that the data will be printed in the book. Because CIP will reduce cataloging costs and is speeding the delivery of books to readers, the Program is benefitting the library world and the publishing industry alike.

- A. Are you aware of the Library of Congress's plans to incluc Federal documents in the CIP program?
- B. Which documents would you prefer seeing in a CIP program?
  - 1. List of agencies___________________________________
  - 2. Check the type of documents:
    - a. Technical reports______
    - b. Periodicals_______
    - c. Manuals and handbooks________
    - d. General publications________
    - e. Monographs___________
    - f. Annual reports_______
    - g. Other________

IV. TYPE OF MATERIALS IN COLLECTIONS

- A. What percentage of your library is documents?__________
- B. What type of documents do you collect?
  - 1. Technical reports:
    - a. NTIS_____
    - b. NASA_____
    - c. AEC_____
    - d. JPRS_____
    - e. ERIC_____
    - f. DDC_______
  - 2. General material__________
  - 3. Periodicals_______
  - 4. Films_____
  - 5. Slides_____
  - 6. Posters_____
  - 7. Photos_____
  - 8. Tapes_____
  - 9. Other_____

C. How do you obtain documents?
  1. On regular agency mailing list_____
  2. Post card or letter to agencies____
  3. Visits to agencies________
  4. Purchase:
    a. Through jobber________
    b. GPO________
    c. Commercial________
D. Do you collect microforms?
  1. Government:
    a. NTIS_______
    b. ERIC_______
    c. DDC_______
    d. Agency generated ______
    e. Other________
  2. Commercial:
    a. CIS________
    b. Readex______
    c. University Microfilms_______
    d. Greenwood_________
    e. Microform International Marketing Corp.______
    f. Redgrave Information Resources______
    g. Other_________
  3. What kind of microform reading equipment do you have?
    a. Readers______
    b. Reader-Printer________

V. WHICH REFERENCE TOOLS DO YOU USE?

A. Types:
  1. Government generated:
    a. Monthly Catalog of U.S. Government Publications _____
    b. Selected List of Government Publications _________
    c. Price Lists of Government Publications ________
    d. Government Reports Announcements ________
    e. Agency catalogs and abstracting services_________
  2. Commercial and other services:
    a. Andriot's Guide to U.S. Government Serials and Periodicals ________
    b. Checklist to U.S. Public Documents 1789-1970 ________
    c. Checklist to U.S. Public Documents 1799-1909 ______
    d. CIS (Congressional Information Service) _________
    e. Annotated Bibliography of Bibliographies on Selected Government Publications and Supplementary Guides to the Superintendent of Documents Classification System, by Alexander C. Body ________
    f. Documents Office classification to 1966, compiled by M.E.Poole ________
    g. Directories of Government Agencies by Sally Wynkoop___
    h. U.S. Government Publications in Geography by C.L. Vinge ________
    i. Subject Guide to Major United States Government Publications by Ellen Jackson _________
    j. Poore's Catalogue ________
B. Do you consider these tools adequate access to the documents?
C. Do you have a separate bibliography section for documents?
D. Do you have a separate reference section for documents?

VI. SERVICES TO USERS

A. Reference:
  1. Telephone Yes___No____
  2. Walk-in Yes___No___
  3. Correspondence Yes____No___
B. Inter-library loan Yes ___ No___

- C. Copying facilities (available to):
  - 1. Staff_____
  - 2. citizen___
- D. Do you lecture on use of documents?
- E. Do you have orientation tours of the documents collection?
- F. Do you have a users handbook?
- G. Do you circulate the documents?
  - 1. To staff_____
  - 2. To citizens_____
- H. Do you help libraries in your region or local area?
  - 1. Advice_____
  - 2. Inter-library loan_____
  - 3. Telephone reference_____
  - 4. Exchange of material______

VII. DO YOU MAKE SURE THAT THE PUBLICATIONS ISSUED F[illegible]ENCY ARE ENTERED IN THE FOLLOWING SYSTEMS?

- A. Superintendent of Documents, Monthly Catalog of U.S. Government Publications _______
- B. Library of Congress______
- C. National Technical Information Service_______
- D. ERIC_______
- E. Agency systems_______
- F. Commercial systems (e.g. Pollution Abstracts)

PLEASE LEAVE THIS QUESTIONNAIRE AT THE REGISTRATION DESK BY 4:00 p.m. Monday!

CENSUS CONFIDENTIALTIY

Dorothy W. Kaufman
Librarian
Social and Economic Statistics Administration

Abstract. The Bureau of the Census collects data for statistical purposes both from individuals and business enterprises. Much of the information collected is of such a nature that persons would not ordinarily wish it divulged to the general public. To prevent the disclosure of information in an individually identifiable form the Census law imposes severe penalties on any Commerce employee convicted of such an unauthorized disclosure. The Census Bureau restriction on the release of individual records is in accordance with the Freedom of Information Act which exempts information that by statute law has been declared confidential.

In the past few years there has been great concern about two aspects of the information gathered by the Federal Government. On the one hand, there has been the feeling that the Government has kept from the people information which should be made available to them. On the other hand, there has been grave concern about the invasion of privacy especially with the development of computers which can store, match and merge data elements easily.

The Bureau of the Census has been concerned with the problems of information dissemination and the confidentiality of individually identifiable records over many years. Its Advisory Committee on Privacy and Confidentiality met last week on some of these problems.

As most of you know, the Bureau of the Census is a general purpose statistical agency which by statute (13 U.S.C.) takes censuses of population, housing, unemployment, agriculture, manufactures, mineral industries, other businesses, and governments. The statutes also provide for the agency to conduct current surveys on the subjects covered by the censuses and to collect data on imports and exports.

To comply with the statutory mandate, the Bureau of the Census must, at intervals, obtain information from every household, all State and local governments, and a large proportion of the business community. Some of the information obtained is of such a nature that the respondents do not wish the data divulged in a manner in which the individual person, family, or business enterprise can be identified. And, the Bureau is prohibited from publishing any data whereby any individual or business establishment can be identified, use collected data for other than statistical purposes, and only sworn Census employees may examine individual reports. The confidentiality provision does not apply to the data supplied by State and local governments as this information is already a matter of public record.

Just what is statistical purpose? This most often means that individually identifiable data obtained from persons or businesses is merged and reported for public use in the form of totals for specific items. In your use of Census reports, you may have noted that some cells within a table may contain no figures. Sometimes the data cannot be reported because the number of respondents reporting that data element is so small that one or more respondents could be identified if the figure were reported.

Other statistical purposes include the development of individual case information and the matching of information from one file to another. The Bureau of the Census public use samples are examples of individual case information. The Census sample files on computer tape have been developed without the inclusion of any identifying information for individuals. Sample data are available from the 1960 Census of Population, the 1970 Censuses of Population and Housing, and the current population surveys.

Now let us turn to the question of confidentiality, or who has access to the original information supplied by respondents? The primary mission of the Bureau of the Census is to gather social and economic data and to make statistical tabulations of the data collected available to the general public. The success of the Bureau's efforts to fulfill its mission depends on the willing cooperation of respondents. Cooperation is most easily achieved when the respondents know that the information they supply will be kept confidential. In a recent statement to the Advisory Committee on Privacy and Confidentiality Mr. Vincent Barabba, Director, Bureau of the Census, said, "While the Census Bureau is authorized by law to collect information from citizens, the same law also includes the protections afforded to a respondent's statements as well as specific penalties for any Bureau employee who releases individually identifiable data. In order to comply with the law and continue to receive the extremely high level of respondent cooperation, the Bureau has and will continue to adhere to strict practices as regards the confidentiality of all information collected."

Such strict adherence to the rights of respondents has not always been the case. In fact, the laws for the first six censuses, 1790-1840, required public posting of the population returns. This public posting gave residents of the area an opportunity to correct any errors before the returns were transmitted to Washington. Through the years, the Census law changed in the direction of greater protection of individual privacy. There have been other instances of release of individual data, with the release being proper for that period but which today would be violently opposed. For example, during World War I, under the War Powers Act, the Justice Department was given individually identifiable data for use as evidence in prosecuting those men who had sought to evade the national draft by failing to register and who had, when challenged, asserted they were not the proper age for induction into our armed forces. By the time we were engaged in World War II, the confidentiality restrictions had tightened. Shortly after Pearl Harbor, the Secretary of War requested that the Bureau supply his Department with the names, addresses, and ages of all persons of Japanese extraction living on the West coast of the United States. Despite the national emergency involved, the Bureau refused to disclose census data in an individually identifiable form and this position was supported by the Departments of War and State who agreed not to press for individually identifiable data. The Bureau did provide tabulations on the Japanese, but no individual could be identified.

Although there were other requests for individual data, the Bureau's policy went unchallenged until 1961 when the United States Supreme Court ruled in the St. Regis Paper Company case that the Federal Trade Commission could subpoena an individual business establishment's file copies of reports submitted to the Bureau and thus challenge the Bureau's tradition of confidentiality as seen by the public. This decision led almost immediately to a resistance or hesitancy to answer census inquiries. Respondents felt, rightly or wrongly, that the confidential relationship to the Bureau had either been violated or could not be trusted in the future. The Congress amended the Census law within a short time with a provision which makes even file copies of reports to the Bureau of the Census immune from legal process.

As some of you may know, the Bureau of the Census, the National Archives, and others interested in the problem have for some time been discussing whether or not the 1900 Census of Population records now on deposit at the National Archives should be opened to the public in some individually identifiable form. Among the factors which have a bearing on this decision are the following:

1. Persons enumerated in 1900 were told that the information provided would be held as confidential;

2. The records contain information about many persons who are still alive;

3. Some of the information in the files could be used to harm individuals enumerated or their relatives;

4. A former Census director stated that the records could be released 72 years after the enumeration date;

5. Historians, social scientists, genealogists, and other researchers wish to use the records for studies which they feel will be of national significance.

You can see that the decision on this matter is not an easy one to reach. Can the Census Bureau consider that its statutory promise of confidentiality outweighs the research needs? Or, should some compromise be reached whereby limited and controlled access to the records might be afforded to researchers? These determinations are still to be made. The Census Bureau is calling upon its Advisory Committee on Privacy and Confidentiality and others for advice on this decision.

Is census confidentiality in conflict with the Freedom of Information Act? No it is not. The law (5 U.S.C. sec. 552) provides certain exemptions. The one which applies to census confidentiality excludes from coverage of the act matters which are specifically exempted from disclosure by statute. The Census law (13 U.S.C.) has specific provisions against unauthorized disclosure of individually identifiable information and provides for fine and/or imprisonment of any employee who may be convicted of disclosing such information.

AUTOMATION FROM THREE VIEWPOINTS -- USER, LIBRARIAN, MANAGER.

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ABSTRACT: Library services are considered in terms of users' needs, with respect to a librarian as director of a library, and from the viewpoint of an executive for a total organization. A simplified algorithm is presented to represent each of these three viewpoints. Some possibilities for automation of services are noted and the evaluation of these possibilities (particularly with respect to costs) is discussed. Possible differences because of the different frames of reference are also noted. The continuing requirement for clear objectives and for agreement upon expected results is emphasized. The possiblities for automation without large expenditures are also underscored.

* * * * * * *

Sometimes there are differences between what a library user says that he wants, what a librarian thinks that the user says, and what an administrator thinks that either one really needs. In such cases one of the many jobs of the librarian is to become aware of such differences and then to serve as the bridge between them. This report will explore such differences with respect to library services, and particularly with respect to the automation of such services. Let's start with the user.

I. Library Users Needs.

As Mr. Alan Rees has commented, "the needs of users have been conditioned by what is available in terms of present systems and equipment and represent a compromise between what they think they would like and that which can be obtained" (Ref. #1). In other words, the user often "needs" what he thinks he can get. Despite this particular anomaly, a great many user studies have been done and the results are usually interesting and useful.

For example, users of the research library at the National Center for Atmospheric Research were asked to rate the existing library services in terms of their comparative importance (#1- most important, #2 next most important, etc. Ref. #2). The top-four ratings from each person were selected as an index to the most important library services and these results are summarized in Table A. Note that the most importance was given to B. Locating specific references -- and to A. Keeping up to date -- both of which are recognized as rather standard library functions. A group of other standard library services were rated somewhat lower in priority, but were evidently still regarded as important by many of the users: C. Locating older published material --; L. Provisions for copying --; N. Provision of access to other libraries --; H. Finding of specific facts --.

TABLE A. RESULTS OF LIBRARY QUESTIONNAIRE -- YOUR NEEDS (Item II).

SERVICE: IMPORTANCE:	1st	2nd	3rd	4th	TOTAL:
A. Keeping up-to-date on new current publications..........	47	12	10	5	74
B. Locating specific references for which the authors or titles etc. are known................	42	30	6	7	85
C. Locating older published material by general categories (i.e. by subject search)...............	16	13	5	5	39
D. Ordering of publications not already in the collections....	7	8	6	4	25
E. Keeping available material properly filed or accounted for so that it can be relocated.............	11	3	8	7	29
F. Browsing for generally interesting material......................	9	5	10	7	31
G. Finding indexed material by the abstracting and indexing journals (Chem. Abstracts, etc.).......	2	4	12	5	23
H. Finding of specific facts through standard reference books......	12	15	4	7	34
I. Provision of secluded study areas and carrels..................	4	0	2	2	8
J. Provision of a place to bring visitors.....................	1	0	1	1	3
K. Assistance on reprint orders, personal books and similar ancillary services.....................	6	3	10	4	23
L. Provisions for copying of material......................	6	10	12	9	37
M. Provision for book-browsing by classification numbers........	3	3	6	5	17
N. Provision of access to other libraries and information sources.......	6	6	12	11	35

Number of questionnaires returned - 117
Responses to this item on questionnaires - 114

One of the primary purposes of this NCAR study was to identify any high correlations between the services as a "cluster" of needs which might typify an "average user". However the study not only failed to identify such patterns, it also led to a major conclusion that there really was no average user for this library. It seems that the service which one user valued highly was not valued at all by another user. Note that less than half of the respondents placed the most popular services (B. or A.) in the position of first importance. Every service received at least one first-importance vote! This part of the study underscored the uniqueness or complexity of each user's information habits.

An additional part of the NCAR study solicited suggestions for improvements in the library but this received very little significant response. Perhaps this was to be expected since 83% of the respondents indicated that the library was "generally satisfactory" in Part I of the study. Anyway the most popular suggestion for improvement was B. More complete and detailed indexing, next was G. Bigger collection of library material, and next was A. Faster delivery of ordered material.

The overall conclusions to the study were:

1. Even the simplest information-handling needs involve quite complex human values and habits, and detailed study is needed for design of communication systems, such as a library system.

2. Although interesting cumulative needs can be easily discovered, individual differences belie the common practice of using an "average user" as the basis for design of communication systems.

3. Users are most articulate about their needs, but their views concerning HOW those needs should be met do not appear to be especially valuable and should be left to information specialists.

4. There do seem to be real differences between what users note as their information requirements, what librarians think will meet those requirements, and what administrators want for meeting either of their needs.

Obviously much of the detail for these conclusions is not covered by the report in hand.

Despite the user's view of the uniqueness of his needs, the information specialist still must treat the cumulative aspects as generalized categories in directing and designing the communication systems. For example, here are the categories of basic needs as categorized by H.P. Luhn (Ref. #3):

1. The need to be kept up-to-date (i.e. -- what's the latest news?) on a topic.
2. The need to learn what is already available (i.e. -- what's already known?) on a topic.
3. The need to locate another source of information (i.e. -- what person or agency knows?) about the topic.

These are the categories used in Figure # 1 as a diagram of the user's needs in this report. It is suggested that the library user normally expects to get the answer to at least one of the questions noted in the form of published (or printed) information. Of course, other media are being increasingly used by some libraries. To the extent that an expected answer in the expected form is provided, the user is ordinarily pleased with the system which provides it. In many cases, the only efficiency factor (cost/benefits) which affects the user's evaluation is in terms of the comparative effort required for access to the system and the effort required in using it. Often the user is not directly concerned with costs because organizations do not commonly make charges on an itemized basis for the traditional library services or products.

II. The Librarian's View.

As was just noted, the librarian interprets the individual user's unique needs as more general categories of needs which are common to a number of the users. This is necessary because the librarian must be more concerned with the efficiency of the system, in addition to its effectiveness. The next frame of reference is that of the librarian as a director of library services, that is a manager. Consequently for purposes of this paper, we will concentrate first on the generalized management activities such as: studying, planning, organizing, implementing, evaluating, and documenting. These categories are used in Figure # 2 along with an added "Role" dimension to represent this viewpoint.

It is visualized that a librarian might undertake the management activities in the role of a specialist -- that is, in terms of the specialized knowledge of a library expert through education and experience skilled in the knowledge, tools and methods of librarianship. The librarian also might accomplish the activities in the role of a supervisor -- that is by assigning and monitoring the work of others. The role of administrator is that of "helper" on the interaction of groups of people doing the work. The role of executive being that of "leader" concerned more with the setting of long-range objectives and establishment of policies (rather than simply procedures).

All librarian's jobs probably have requirements at the specialist level; many librarians must also operate at the supervisory level; some librarians have the added administrative role; and at least a few librarians are in an executive role, at least part of the time. Parenthetically, it is this author's opinion that too few librarians have the executive view and that not enough time is spent in it.

III. The Executive View.

The stage has now been set for a little more discussion from the viewpoint of an executive in the overall organization. At this level even greater emphasis is given to efficiency in terms of minimizing costs, and to a certain extent this may occur at some detriment to effectiveness. The executive is also concerned with the comparative allocation of resources and with the establishment of priorities -- all in relation to broad (hopefully long-range) objectives of the organization as a whole.

Figure # 3 is an attempt to diagram such an executive frame of reference for a research agency in the Federal government with most of the emphasis and detail given to the presumed possible products of the agency. This initial model was developed for discussion purposes in management analysis work and it is not a widely accepted representation at all. Arguments usually develop as to whether the outputs are real products or not, or whether they should be. Anyway it should serve to illustrate the possible wide spectrum of results that an organization might be expected to provide and therefore the broad view required of an executive.

IV. Differences related to Library Services.

It is not surprising that the different points of view which are noted often results in different opinions about the alternatives for library services. Several things have already been noted: the user normally doesn't structure or categorize his "needs" at all and therefore Figure # 1 really represents the viewpoint of one information specialist; similarly Figure # 2 is an executive view of the librarian's job; and Figure # 3 is probably a view of the executive's job from outside the organization.

From an individual user's view, library services are successful when they provide what is desired as soon as it is desired with a minimum of effort. Librarians might measure the success by the lack of complaints, by the size of their collections, by increases in numbers of circulated items. Executives might measure success (or at least might want to measure it) by the continuing provision of current library services with less cost, less staff, or less floor space.

In addition to the different frames of reference for evaluating library services, the analysis is also complicated by "Pareto effects" -- that is, a disproportionately large effect produced by a comparatively small element. For example, it is widely recognized that a comparatively small number of avid library users account for a disproportionately large amount of the total library use (and work load, and cost). Another enigmatic example of such Pareto effect is shown in Figure # 4. This graph was based on samples of the user's requests which were met by material in the NCAR library collections. Initially, as the collections grew, an increasing percentage of the user's requests could be met by the expanding collections. However the collections reached a size such that the percent of success began to level off. Consequently it became apparent that some finite amount of library material was sufficient to meet the majority of the user requests; and that as long as that basic finite collection was kept up-to-date (and that the user characteristics did not change too much) further increases in the size of collections would not produce proportionate increases in the library success. From an executive view, this could be very important because it could mean that an agreement about such a finite size would mean that the library would not need to continue expanding indefinitely, that the staff might not need to kepp increasing, and even that (excepting inflation) some basic budget level should be adequate to provide adequate library services within a particular organization. Certainly, a librarian might look at this situation with very mixed feelings. Of course the user probably would not care at all as long as most of what he wanted was provided with little effort.

Similarly the possible automation of library services is also complicated by such differing viewpoints, and by such Pareto effects.

V. Automation of Library Services.

In the context of this paper, it seems that most library users who are reasonable happy with existing services probably don't care at all whether there is any more (or less) automation of a library -- as long as no increased effort is required by the user either way. During the period that most of the NCAR library records were automated (1964 to 1968) the percentage of the users who found the library "generally satisfactory" increased from 80% to the aforementioned 83%. This probably also means that any currently satisfied user would be opposed to any change, unless the change can be "sold" as a possible increase in effectiveness of at least one of the services that the particular individual happens to think is important. In terms of the most popular library services, the most likely candidates would therefore be possible improvements in "locating specific references" or in "keeping up-to-date". Next might be "locating older published material".

From the librarian's standpoint, the first candidate for automation would probably be any specific record-keeping problem that might be of immediate concern. If there were a recognized problem in some existing library service (because of complaints, too much workload, etc.), this would undoubtedly be an area for possible consideration of automation. The librarian's view would probably then be concerned with some aspect of efficiency (cost/benefit) in relation to the alternatives. The evaluation might be colored by the existing planning, organization, staffing available, etc.

From the executive viewpoint, any possiblities for reducing costs, for reducing staff or floor space requirements would be likely candidates for automation alternatives, if appropriate. To the extent that an automation alternative required additional resources there would undoubtedly be increasing resistance from the top management -- unless some of the "unrecognized" organizational outputs (such as status, power, pleasure, etc.) were enhanced for the particular executive.

After possible automation candidates are identified, the following steps are advocated in analysing each of the alternatives:

1. Define the desired product (or possible one) and list its characteristcs as specifically as possible.

2. Estimate the need for this product and the amount of use that might occur.

3. Estimate the technology and human factors involved.

4. Estimate the expected costs.

5. Estimate the work flow problems and the alternatives.

6. Now define the objectives or the contribution to the objectives that are possible.

7. Collect sample real information about each alternative and generalize it with relation to other products or services.

8. Repeat with step 1, if needed for a decision.

VI. Conclusions.

It is well-recognized that simple, repetitive tasks are the best candidates for automation; and that the larger the volume of such tasks, the better the cost picture becomes in favor of the automation alternative. In general for libraries, any time that the same information must be re-used more than two or three times possible automation should be considered. Keyboarding information for automation is about twice as costly as typing the information; therefore the justification often comes from re-use of the same information, wherever this is possible.

Here is a table of common products from library automation with some comments about comparative costs:

TABLE B. AUTOMATION OUTPUTS FOR LIBRARIES.

POSSIBLE PRODUCT:	COMMENTS:
1. Publication purchase order	Economical only if the information can be re-used later in processing.
2. Announcement bulletins	Economical to the extent that biblio. info. is re-usable. Good starting point for "capturing" biblio. info.
3. Catalog cards	Same as above. Sometimes prohibitive restrictions of formats available. Computer is NOT an economical printing press.
4. Indexes.	Economical if cumulative "book-catalog" indexes are acceptable, and if revisability is well-planned. Printout overload can be a hazard.
5. Identification tags, book pockets, etc.	Economical for call numbers, if these are a by-product of other processes.
6. Circulation records	Economical to extent they are by-product of previous processes.
7. Overdue notices	Same as above.
8. Routing lists	Economical if sufficient quantity is done & only partial revision is needed.
9. Serials records	Complicated -- depends on many factors.
10. Union lists	Moderate costs (on order of $1.00/title) to establish. Economical revision possible.
11. SDI system	Economical once the profiles are compiled, depending upon the quantity.
12. Information retrieval	Usually expensive proposition, if "on-line" particularly.
13. Thesauri	Economical if revisablility is desired.
14. Skills register	Economical if it is by-product.
15. Directories	Economical if revisability is desired.

The major conclusion of this author is that automation can work very well for library services and that such automation can be quite effective and efficient. Such automation does not need to be attempted as a large total system even when the total system must be considered. Careful analysis and planning should be able to distinguish small parts of the total which can be automated inexpensively for any but the very smallest of libraries.

Lastly, the need for "management by objectives" should be emphasized. The disparate viewpoints of users, librarians, and executives can be reconciled to the extent that common objectives are set, and that mutual agreements about the desired results can be achieved. The complex nature of communication systems makes it most imperative that successful communication among those who design, those who use, and the management of such systems be implemented.

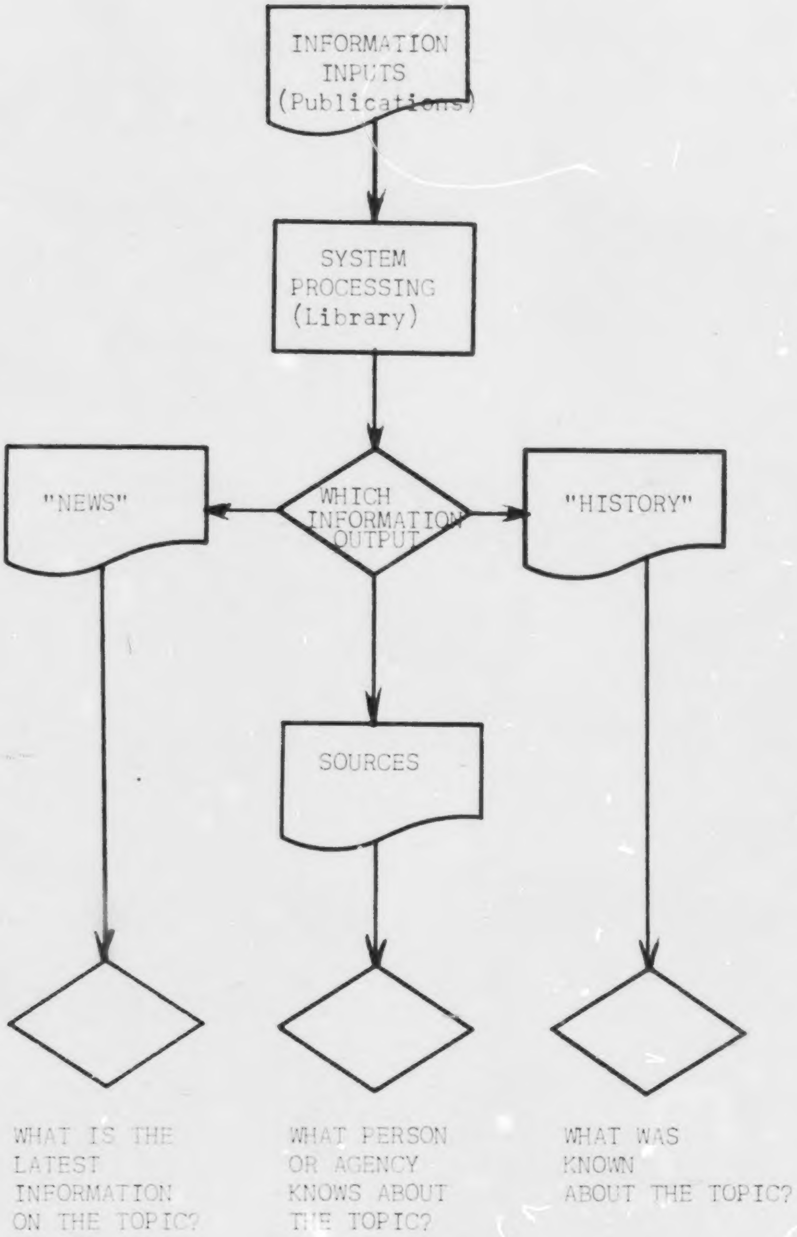

INFORMATION INPUTS (Publications)
SYSTEM PROCESSING (Library)
WHICH INFORMATION OUTPUT
"NEWS"
"HISTORY"
SOURCES
WHAT IS THE LATEST INFORMATION ON THE TOPIC?
WHAT PERSON OR AGENCY KNOWS ABOUT THE TOPIC?
WHAT WAS KNOWN ABOUT THE TOPIC?

FIGURE # 1. AN INFORMATION SYSTEM IN TERMS OF THE USERS' NEEDS. (Based on H.P. Luhn, Ref. #3)

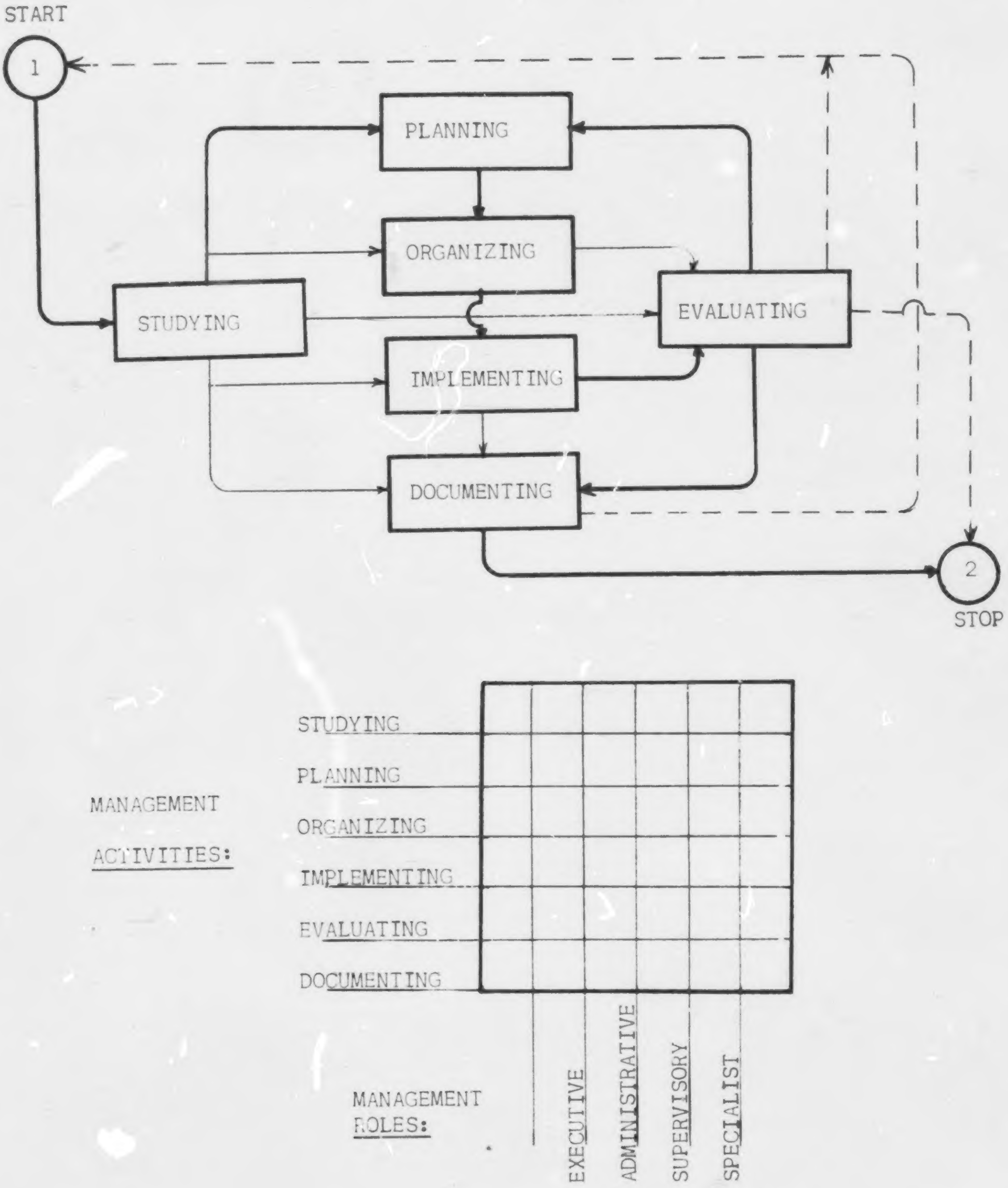
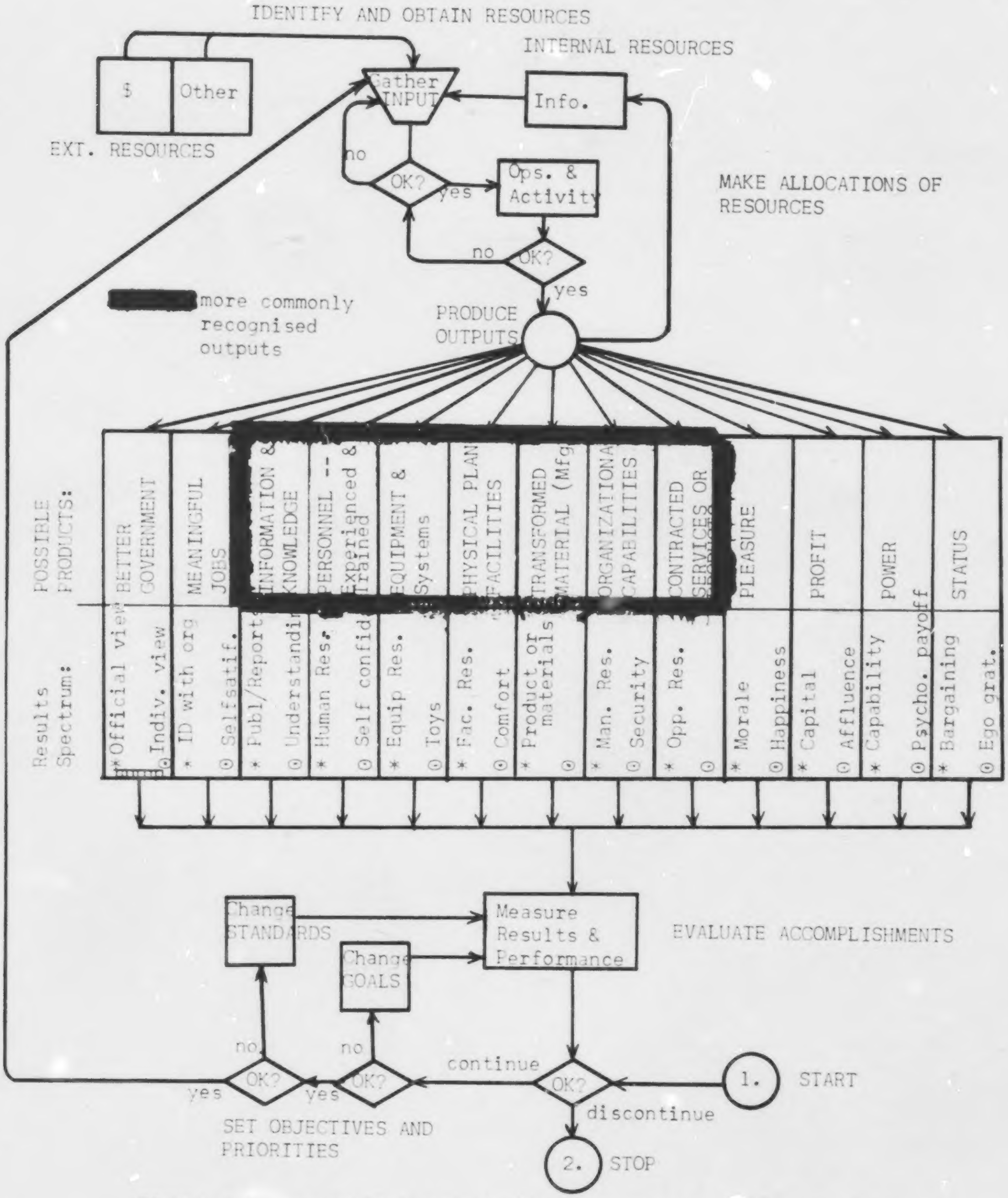

START
1
PLANNING
ORGANIZING
STUDYING
EVALUATING
IMPLEMENTING
DOCUMENTING
2
STOP
MANAGEMENT
ACTIVITIES:
STUDYING
PLANNING
ORGANIZING
IMPLEMENTING
EVALUATING
DOCUMENTING
MANAGEMENT
ROLES:
EXECUTIVE
ADMINISTRATIVE
SUPERVISORY
SPECIALIST

FIGURE # 2. AN INFORMATION SYSTEM IN TERMS OF A LIBRARY DIRECTOR'S NEEDS.



IDENTIFY AND OBTAIN RESOURCES
INTERNAL RESOURCES
$
Other
EXT. RESOURCES
Gather INPUT
Info.
no
OK?
yes
Ops. & Activity
MAKE ALLOCATIONS OF RESOURCES
no
OK?
yes
more commonly recognised outputs
PRODUCE OUTPUTS
POSSIBLE PRODUCTS:
Results Spectrum:
BETTER GOVERNMENT
* Official view
⊙ Indiv. view
MEANINGFUL JOBS
* ID with org
⊙ Selfsatif.
INFORMATION & KNOWLEDGE
* Publ/Reports
⊙ Understandin
PERSONNEL -- Experienced & Trained
* Human Res.
⊙ Self confid
EQUIPMENT & Systems
* Equip Res.
⊙ Toys
PHYSICAL PLAN FACILITIES
* Fac. Res.
⊙ Comfort
TRANSFORMED MATERIAL (Mfg
* Product or materials
⊙
ORGANIZATIONA CAPABILITIES
* Man. Res.
⊙ Security
CONTRACTED SERVICES OR
* Opp. Res.
⊙
PLEASURE
* Morale
⊙ Happiness
PROFIT
* Capital
⊙ Affluence
POWER
* Capability
⊙ Psycho. payoff
STATUS
* Bargaining
⊙ Ego grat.
Change STANDARDS
Change GOALS
Measure Results & Performance
EVALUATE ACCOMPLISHMENTS
no
no
OK?
OK?
OK?
yes
yes
continue
discontinue
1.
START
2.
STOP
SET OBJECTIVES AND PRIORITIES

FIGURE # 3. AN INFORMATION SYSTEM IN TERMS OF A TOP EXECUTIVE'S NEEDS (AN INITIAL MODEL FOR A FEDERAL RESEARCH AGENCY).

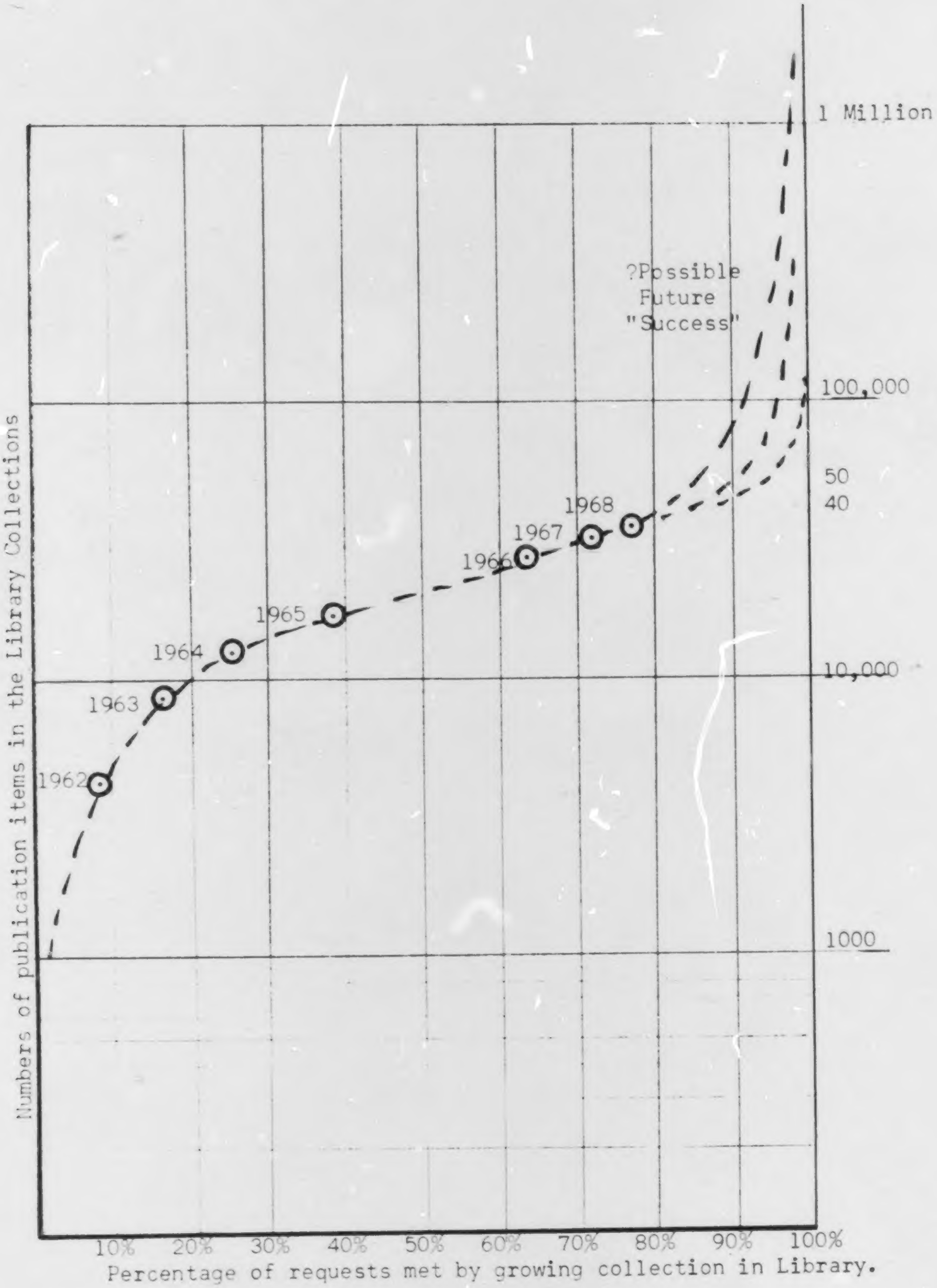


FIGURE # 4. MEASURING "SUCCESS" OF A LIBRARY IN COMPARISON TO THE SIZE OF A COLLECTION.

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Depository Libraries: an Overlooked Resource in the Freedom of Information Process?

by
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Abstract

The purpose and history of the depository library system reflect an effort to make government publications increasingly available for the "free use of the general public," illustrating a similarity of purpose with the Freedom of Information Act. This paper explores whether there are ways the depository library system and the Freedom of Information Act can be used together to realise their shared goal of making more government information available to the public.

It concludes that depository libraries can help the citizen use the Freedom of Information Act in three ways: 1) identifying the agency responsible for desired information and locating that agency's public information procedure; 2) assisting in proper identification of the information desired; and 3) directing the request to the appropriate office.

Participation of depository libraries in the freedom of information process can be facilitated by mutual awareness and cooperation between depository libraries and Federal agencies--in particular, the Federal Library Community.

Introduction

All of this writer's post-Master's degree work experience has been in libraries with depository designations: a major academic department library receiving depository items from the parent library; a state academic institution with a separate selective depository collection; and a public library designated as a regional depository, with a separate documents collection. With all this background in depository libraries, this writer was struck at the Summer 1973 ALA Government Documents Round Table program on the Freedom of Information Act that she had never heard depository libraries and the Freedom of Information Act mentioned in the same context. This seeming failure of the library world to relate one to the other was surprising since the goal of the Freedom of Information Act seemed quite similar to the stated goal of the depository library system: to make "government publications available for the free use of the general public," or to borrow the more enthusiastic phrase of the GODORT newsletter, to get "documents to the people."

This feeling that the relationship between the depository library system and the Freedom of Information Act should be explored was reinforced in a discussion with one of your Federal Librarians--and eventually led to the preparation of this paper.

History of Depository Libraries

The purpose quoted above is taken from the United States Code. A brief review of the history of depository libraries might create a fuller understanding of this purpose.

While the Freedom of Information Act is of recent vintage, the depository library system goes back to 1813, when Congress first directed that 200[3] copies of all future documents be printed for distribution to libraries. In 1857 and 1859, the depository system as it now stands was set up. It seems significant that the wording of the Resolution was changed from institutions designated by the Secretary of Interior to those designated to him by the representative in Congress from each Congressional district and by the delegate from each territory in the United States.[4] This provision was especially important for such areas as Colorado where the gold rush boom was only beginning in 1858, and a separate Colorado territory was not created until 1861. This acknowledgement of a need for geographic distribution of depository libraries was understandable at a time before railroads extended West of the Mississippi; it implies that in order for there to be equal access to government publications, those publications must be equally available in a physical sense.

The depository system has gone through a number of changes since 1857. In 1895, the number of institutions eligible for depository designations was increased to include state and territorial libraries, land-grant colleges, and other institutions. Items included were also extended from those in the Congressional series to "all publications of the Executive Departments, not intended for their especial use, but made for distribution."[5] In 1922, libraries were first allowed to select from depository items those they specifically desired, a privilege formalized into law in 1957.[6] However, up until 1962, libraries were required to retain all depository items received.

The Depository Library Act of 1962[7] made several significant changes in the system: 1) allowed the creation of not more than two regional depositories in each state which are to receive and retain all depository items, thereby allowing other depositories in the state to discard items more than five years old; 2) increased the number of potential depository designations by allowing two in each Congressional District and two by each Senator as well as increasing the number of eligible specialized institutions; and 3) allowed for the distribution by the Superintendent of Documents of items not printed by the Government Printing Office, which you, as representatives of government agencies, will recognize are multitudinous.

The history of the depository library system reveals several trends: 1) an increasing number of institutions eligible for depository designation; 2) increasing scope of information to be distributed through the system; 3) increasing freedom for designated libraries to serve their individual constituencies by allowing individual selection and retention policies; and yet, 4) insuring geographic availability of all depository material--most recently in the provision for regional depository libraries. These trends of increasing availability seem to reinforce the idea that the depository library system and the Freedom of Information Act share a common goal, i.e., to make as much government information as possible available for the free use of the general public.

Rights and Procedures under the Freedom of Information Act

If it is agreed that the depository library system and the Freedom of Information Act have very similar goals, the next question becomes: How can they--or can they?--work together to achieve a fuller realization of those goals? In the following discussion, some fundamental assumptions are made. First,

> The public has a right to know how the federal government is discharging its responsibilities. . . Individuals and public interest groups alike should become familiar with the [Freedom of Information Act] and use it.[8]

These statements are taken from "The Freedom of Information Act: What It Is and How to Use It," prepared by Ronald Plesser of the Freedom of Information Clearinghouse in Washington, D.C. They are particularly provocative for depository librarians when set side by side with a statement in a 1970 Library Journal:

> It should be assumed that the average patron will have little or no knowledge of his rights to information or how to go about obtaining the data he needs. Under these circumstances it is up to the librarian to provide the answer, either by showing the patron how to get the information or by getting it for him.[9]

"Average patron" could certainly be translated to "average citizen."

Given these assumptions, the first problem in implementing the Act is how to inform the citizen of his rights under the Act and the procedures required to exercise those rights. Depository libraries, which contain much of the published information from government agencies, would seem to be a logical means of making this information available to citizens throughout the country. Yet, when one begins a search for succinct explanations of the Freedom of Information Act and how to use it, not one government publication can be found. The two best general sources located by this author are the non-governmental sources already cited. It is interesting that as late as January 1973, White House Communications Director Herbert Klein was quoted as indicating:

> the Justice Department is considering issuing a pamphlet detailing citizens' rights under the Act and procedures required in applying for public information,[10]

only six years after the Act became law! The pamphlet, when it comes into existence will probably be a depository item; but will it make any mention of depository libraries as a possible source of information?

For, while depository collections may have no explanatory documents on the Freedom of Information act itself, much of the publishing required by the Act results in depository material. Most obvious is the Code of Federal Regulations and Federal Register, where specific agency procedures may be found for requesting material under the Act. For the citizen to learn in more than a general way what procedures are required, he must first know what agency is responsible for the desired information. In some cases, the parent department may be obvious; but in many others, the general citizen is going to have little understanding of specific agency responsibilities. In addition to the Code of Federal Regulations and Federal Register, the basic tool for learning department and sub-agency responsibilities is the United States Government Organization Manual, another depository item. Some of your agencies also publish organizational directories, like that of the Forest Service, and descriptions of services, like that from the Environmental Science Services Administration, both depository items.[11]

The more knowledge of government organization one can bring to using all these tools, the more likely it is that the desired information will be found. The depository librarian, experienced in untangling the complexities of government bureacracy, can provide a valuable service to the general public. Whereas Plesser's handout gives a general explanation of how to proceed, the depository library has the tools and expertise for helping individuals learn exact procedures for using the law.

Let us assume a citizen knew enough about the Freedom of Information Act and depository libraries to get to a library and determine the agency with general responsibility for the desired information. As you probably know--but most individuals will not--a subject approach to the Code of Federal Regulations is not easy. However, in the general index under "Information availability" one will find references to the agencies with separate sections dealing with public information.

Much patience and some knowledge is required to determine whether a sub-agency's procedures are spelled out under the parent department or the sub-agency. For example, National Bureau of Standards regulations appear in a separate chapter of Title XV of the Code of Federal Regulations; however, its information procedures are covered under the public information section of the subtitle dealing with the Office of the Secretary of Commerce.[12] The general citizen is going to need help in getting this far, and he can get that help from a depository library. No doubt a request addressed to the head of the National Bureau of Standards would eventually reach the right desk. However, could not a little preliminary research into exact procedures on the part of the citizen eliminate some of the delay frequently mentioned by critics of the operation of the Freedom of Information Act?

Identifiable Records

Another potential stumbling block for the citizen desiring to use the Freedom of Information Act is the requirement that a request be for "identifiable records."[13] In dealing with the Commerce Department, he must first determine that the record is "not customarily available to the public as part of the regular informational activities of the Department" since this Department's public information procedures do not apply to regularly available materials.[14] Again, the depository library, recipient of many agency catalogs of publications and descriptions of services, seems an excellent starting point for attempting to identify desired records and possibly determining whether they are available through other channels.

For example, the National Bureau of Standards has long published a catalog of their publications,[15] a depository item, which is an excellent tool in identifying their reports. The Census Bureau catalog,[16] also a long-standing depository item, is another excellent access tool; its value for depository libraries has been greatly increased with the fairly recent inclusion of Superintendent of Documents call numbers. Many more departments and sub-agencies have begun to publish catalogs in recent years; one wonders if this trend is a result of the Freedom of Information Act requirement for indexes.[17] The Health, Education, and Welfare Department catalog[18] is a major new addition in this area. We hope they will soon follow the Census Bureau's example and include call numbers and publication dates.

Aside from the fact that depository libraries will have agency catalogs, much of the material listed in the catalogs is distributed through the depository system. Therefore, the citizen might be able to identify and locate the desired information all in one step. A recent example of agency recognition of the depository library's role in making information available was contained in the National Bureau of Standards' directory of depository libraries receiving National Bureau of Standards publications.[19] Detailing exactly which agency series are received by each depository, it is intended for use by various Bureau offices in referring inquiries to appropriate depository libraries.

Of course, most requests will not fall into this category. However, with department newsletters, press releases, and some manuals, as well as the Code of Federal Regulations, depository libraries could provide limited assistance in identifying records. If they have developed cooperation with the Federal Library Community, they could provide even greater assistance by a phone call to an appropriate agency library. You people know your agencies' activities and publications much better; you have access to staff manuals not in the depository collection; and you have direct phone lines to Washington, D.C.

Direction of Requests

Still another area in which depository libraries could help citizens use the Freedom of Information Act is in determining how to address the final request for information. Much guidance in this area can be found in the Code of Federal Regulations.

To return to the Commerce Department, the Code of Federal Regulations identifies the central clearinghouse for requests under the Act; however, before such a request is initiated, the inquirer "should contact the appropriate office responsible for providing such information to the public." The Code of Federal Regulations goes on to state that these offices are listed in the Federal Register, Departmental guides and handbooks, United States Government Organization Manual, and the Department of Commerce Telephone Directory. It makes no suggestions of availability for the first two, but does state that the latter two are for sale by the Superintendent of Documents.[20] However, there is no warning that payment must accompany the order nor is there any price information. Talk about delay! One wonders if the suggestion is serious. Would not it have been much simpler to suggest the possibility of a nearby depository library? Of course, the Commerce Department telephone directory is not a depository item, and has not been listed in the Monthly Catalog since 1970.

The Administrative Conference of the United States has recommended that each agency publish

> a directory designating names or titles and addresses of the particular officer and employees in its Washington office and in its various regional and field offices to whom requests for information and records should be sent. Appropriate means should be used to make the directory available to members of the public who would be interested in requesting information or records.[21]

A departmental telephone directory would seem to meet some of the intent of the recommendation. And would not an "appropriate means" of making this directory available to the public be to distribute it through the depository system?

Many agencies seem to have come to a recent realization of this fact. In the last few months, a number of departmental telephone directories have become depository items, including that for the Defense Department. The latter is particularly interesting since twelve years ago, the Navy telephone directory was denied to a requestor because it was for administrative and internal use.[22] We *have* come a little way. If depository libraries are to play any part in the freedom of information process, agencies must recognize the need to distribute this kind of material through the depository library system. This is another area where the Federal Library Community could help: in educating your agencies to the reasons for making this material available to depositories.

Conclusion

To summarize, depository libraries can help the citizen exercise his rights under the Freedom of Information Act in identifying the agency responsible for the desired information and locating that agency's procedures, assisting in proper identification of the information desired and possibly providing the information immediately from the depository collection, and in directing the final request to the appropriate office.

But the depository library cannot do this alone. It needs help from Federal agencies in making the necessary manuals, indexes, and directories available to depository libraries. It needs referrals from Federal agencies for that material known to be available in depository collections. And it needs the ability to call on Federal agencies when none of the printed material avails. The Federal Library Community could be of tremendous assistance in this effort, both in educating your agencies and in being available for inquiries.

Here in Denver, generally acknowledged to be the largest Federal complex outside of Washington, we are only beginning to explore this possibility of cooperation between Federal libraries and depository libraries. It seems to have much potential mutual benefit. May I urge you to take stock of the depository libraries in your area and see if there is a way for you to work together to make more government information available to the public?

Footnotes

[1] 44 U.S.C. 1911; documents to the people (Chicago, Ill.: American Library Association, Government Documents Round Table); irregular.

[2] For the history of depository libraries, the author is much indebted to Laurence F. Schmeckebier and Roy B. Eastin, Government Publications and Their Use, 2d rev. ed. (Washington, D.C.: Brookings Institution, 1969), pp. 123-130.

[3] 3 Stat. 141.

[4] 11 Stat. 253; 11 Stat. 368.

[5] 28 Stat. 610.

[6] 42 Stat. 436; 70 Stat. 369.

[7] 77 Stat. 352.

[8] Ronald Plesser, "The Freedom of Information Act: What It Is and How to Use It" (Washington, D.C.: Freedom of Information Clearinghouse, no date), p. 1 (Processed).

[9] Matthew J. Kerbec, "The Public Information Act," Library Journal, Vol. 95 (December 15, 1970) p. 4231.

[10] "Executive Memoranda," Government Executive, January, 1973, p. 11.

[11] U.S. Department of Agriculture. Forest Service Organizational Directory, May 1973 (Washington, D.C.: Government Printing Office, 1973); U.S. Department of Commerce. Environmental Science Services Administration. The Environmental Data Service; Services and Publications (Washington, D.C.: Government Printing Office, 1970).

[12] 15 C.F.R. 4.6.(a).

[13] 5 U.S.C. 552 (a) (3).

[14] 15 C.F.R. 4.6(a).

[15] U.S. Department of Commerce. National Bureau of Standards. Publications of National Bureau of Standards (Washington, D.C.: Government Printing Office, various dates). Issued as NBS Circular 460, Miscellaneous Publication 240, Special Publication 305 and its Supplements 1-3.

[16] U.S. Bureau of the Census. Bureau of Census Catalog (Washington, D.C.: Commerce Department, Social and Economic Statistics Administration, Census Bureau); quarterly, cumulative to annual volume.

[17] 5 U.S.C. 552 (a) (2) (c).

[18] U.S. Department of Health, Education, and Welfare. *Catalog; U.S. Department of Health, Education, and Welfare Publications* (Washington, D.C.: U.S. Department of Health, Education, and Welfare, Office of Public Affairs); quarterly.

[19] U.S. Department of Commerce. National Bureau of Standards. *U.S. Depository Libraries Receiving National Bureau of Standards Publications*, (Washington, 1973).

[20] 15 C.F.R. 4.6 (a).

[21] "Recommendation 24: Principles and Guidelines for Implementation of the Freedom of Information Act," in U.S. Congress. House. Committee on Government Operations. *U.S. Government Information Policies and Practices-Administration and Operation of the Freedom of Information Act (Part 4), Hearings*, before a Subcommittee of the Committee on Government Operations, House of Representatives, 92d Congress, 2d session, 1972, p. 1233.

[22] *Congressional Quarterly Almanac; 89th Congress, 2d session, 1966* (Washington, D.C.: Congressional Quarterly Service, 1967), p. 559.

THE COMMON SERVICES CONCEPT

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Abstract/Summary

As an outgrowth of the President's establishment of ten Federal Regional Councils, and in accord with the New Federalism concept of interagency cooperation, the Northwest Federal Regional Council and the General Services Administration (Region 10, Auburn, WA) entered into an agreement to establish a common services program. A single organization unit (GSA) provides centralized services common to all the Regional Council agencies, i.e., printing, mail, procurement, library, etc. The various phases of planning, establishing, and implementing the program as well as the benefits, problems, and evaluation of the project (culminating in a Presidential Management Improvement Award) will be discussed.

The Common Services Concept

As you may have gathered by the title of this presentation--the concept of common services is as common and as simple as it sounds--a conglomerate of services provided from one central location and from one neutral organization responsive and answerable to all agencies in a Federal complex.

Can this type of venture be a success? Why not? Your organization and all library organizations have been providing this common service concept since its first stone tablet collection--more than several thousand years ago. A service that very few individuals on this earth can afford to provide for themselves. There isn't enough time, available monies, or expertise for one individual, or an agency in this sense, to develop a collection of books or a group of sophisticated services that could be compared to what could be accomplished by a joint effort on the part of a group of agencies.

Doesn't it seem rather strange--should be almost embarrassing to all of us--just 3 years short of our Nation's bicentennial--that we are now experimenting with an indepth "Common Services" concept?

As an outgrowth of the President's establishment of ten Federal Regional Councils, and in accord with the New Federalism concept of interagency cooperation, the Northwest Federal Regional Council and the General Services Administration (Region 10) entered into an agreement to establish a common services program. A single organizational unit (GSA) provides centralized services common to all the Regional Council agencies located in the Arcade Plaza Complex, i.e., printing and duplicating, mail and messenger, office supplies (via messenger), procurement, shipping and receiving, labor and maintenance, warehousing, conference room scheduling, imprest funds, and of particular interest, the Northwest Federal Regional Council Library, which is unique and extremely effective.

The Office of Management and Budget directed the Northwest Federal Regional Council and the General Services Administration, Region 10, to jointly determine the feasibility of such an undertaking as common services. The Working Group on Administration of the Council, of which GSA is a member, initiated feasibility studies for each type of service to determine any potential savings and its practicality. The studies began in April 1970--were approved in December of the same year and the services began operating during March 1971 as a national pilot project.

Several of the agencies were in the process of being established as Regional offices and the Common Services organization was able to "grow" with them as an integral part of their organizations. To many other existing agencies this new concept was a direct challenge to their way of performing "business as usual." After all, how could an outsider open, sort, and deliver their mail; provide their peculiar types of office supplies; buy equipment and furniture without divulging secret desires or state secrets, and many other personal services that could not be provided by a foreign agent?

Many of these fears were very real to them and had to be carefully put to rest. The solving of the problems were not magical--just plain natural--because of combined people power in one location, there was now more people power available for peak demands than they previously had as individual agencies. In a very real sense, this is one major advantage of the joint common services--a pooling of resources--people power, equipment, space, and expertise--all from one organization. They also retained a voice in the operation through the Working Group on Administration.

The benefits are both tangible and intangible. Tangibly, the pooling of resources from the various agencies in the establishment of an integrated common services unit has eliminated unnecessary and costly duplication, has permitted standardization of equipment and procedures, has improved people utilization through specialization of personnel and centralization of services, and has provided some agencies with services which they would not have under any other type of arrangement. Intangibly, the common services unit has relieved the agencies of many of the tasks of internal administration, thus allowing them to direct their energies to the performance of their basic missions. The concept also provides an excellent example to all agencies of the benefits which could be achieved through interagency cooperation in a limitless number of similar situations.

Common services have been provided by GSA for years; however, the provision of these services by a single integrated unit is a novel approach. Acceptance of this concept by the agencies and GSA is a result of long discussions and negotiations during which the strong convictions of the Working Group were in evidence. It can be said generally that Governmental agencies are reluctant to relinquish a function which would result in compromising their independence. The members of the Working Group represent six separate agencies, each of which has its individual peculiarities and its traditional ways of doing things. Each member of the Working Group had loyalties to his own agency. However, each had an overriding loyalty to the national interest. The success of this new concept can be attributed primarily to the openminded and cooperative attitudes of these members, their willingness to change from the traditional ways of doing things, their demonstrated desire to promote the national interest above those of the individual agencies, and their exercise of good common sense in recognizing and fully exploiting a new method offering a significant potential for management improvement. The review directed by OMB after the first year of operation culminated in a Presidential Management Improvement Award for all agencies involved in the project.

The method of financing this project is very basic--all costs are accumulated in a single account i.e., labor, library materials, office supplies for all agencies, and equipment depreciation costs and then billed monthly to the participants on a pro-rata share based on agency population in the building.

There are many undefined and undetermined tangible and intangible savings that are by-products of the common services concept such as:

- approximately 75% less FEDSTRIP line items originated and processed due to the office supplies being requested by the one large volume common services office rather than five offices ordering the same items on a smaller scale.

- office supplies being delivered to each mail stop by the mail/messenger system rather than employees traveling to distant supply rooms.

- all freight and parcel post being intercepted at the basement level rather than constant interruptions on all six floors.

- laboring services have contributed many dollars in savings versus the use of commercial movers for minor moves.

- inhouse repair of furniture has saved unestimated contractural shipping and labor costs.

- vendor's sales representatives working through the central procurement office has eliminated many hours of interrupted time within the agencies.

The Working Group on Administration of the Regional Council has a continuing interest in developing additional services to be provided by the Common Services office. At their request, a feasibility study was recently completed in the area of teleticketing--this will also be a unique challenge--and again a first in providing this service from a central point to multiple agencies and from a group of airlines. The major savings in this type of service will be in the cost of processing of "one" Government transportation request from each agency for each week for all tickets purchased during that week--rather than one request for every ticket. The savings in the costs of processing "GTR's" will amount to approximately $30,000 for the first year. There are also savings to be realized in man-hours involved in picking up tickets at airline offices three and four blocks away by clerical personnel.

Other areas of consideration for services will be items such as property management, mini-motor pools, steno/typing or so called "word processing" centers, training equipment and services, and motor messenger services.

We have accepted the challenge of establishing this pilot project and with the assistance of a great number of individuals, the accomplishments have been very rewarding. We do not hesitate to encourage you to work toward offering your services and energies in any way possible in the area of interagency cooperation.

Libraries should be given high priority when considering feasibility studies of the Common Services concept. It is the way to go and we would like to challenge each of you to look at your present situation and see if there isn't a better way of doing business.

LITE, A Better Way Through Computer Technology

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Abstract

This paper describes the LITE (Legal Information Thru Electronics) System of computerized research which is being operated by the United States Air Force as executive agent for the Department of Defense. It explains the legal source materials which are being researched. The paper discusses special indexes and other products of the computer system. It provides substantial discussion on the advantages of computerized research over manual research.

There is, perhaps, not a single person within this audience who at some time during his career has not said "There must be a better way to conduct research." It is a pleasure for me to bring you the LITE story of the computer, a revolution in legal research.

The name "LITE" is an acronym for "Legal Information Through Electronics." Today the name "LITE" applies to computer system and the Department of Defense activity which is providing a legal research service to Federal Government offices.

We have often said that the coming of the "Computer Age" to the legal profession is probably the most significant happening in that profession in at least the last one hundred years. Librarians are, perhaps, exceptionally attuned to the potential of new research technology. Because of the unique position you occupy, you are acutely aware of the problems and frustrations experienced in library research everywhere; and, as professional librarians, you are receptive to ideas which may offer hope of conducting research faster, more efficiently, and more thoroughly, than is possible with your present resources. We believe you will look critically at LITE. We hope you will see some of the potential we have seen.

From some of your bulletins and agenda at this seminar, it is quite clear that you are making diligent effort to find better ways of doing things, if possible. If you have not previously heard or encountered LITE, perhaps you may find the LITE story of interest.

Over 10 years have elapsed since the LITE Project was started as a Department of Defense sponsored project, with the United States Air Force serving as the executive agent for the DOD. The LITE operations are still conducted from its Denver, Colorado, location with a staff of lawyers, computer system analysts and others manning the LITE operation under Air Force direction. LITE is a part of the Special Activities Group of the Office of the Air Force Judge Advocate General.[1]

LITE provides service, which I will later describe for you, to users within the Department of Defense and to other Federal, State and Local Government agencies. LITE search service is provided without charge to DOD users, for a fixed charge (which presently is $50) to other governmental agencies. Charges are waived for the Executive Office of the President, Members of Congress, Congressional Committees, the Library of Congress, Presidential Commissions, and the United States Supreme Court. During the past fiscal year, 1973, LITE performed an average of 1,796 searches per month, with a total of 21,558 searches for the year, an 80 percent increase over the preceding year. LITE also produces special products with the aid of the LITE computer system. Some of these will be described later.

Of LITE's users, approximately sixty-five percent are attorneys, the remaining thirty-five percent being from other fields, such as procurement, accounting and finance, auditing, personnel and the like. LITE's users are located throughout the United States and worldwide.

The essence of the LITE System is that a way has been found to store electronically masses of legal textual material using the vast storage capacity of a computer.[2] The system uses an ingenious technique for assigning locator numbers for every single meaningful word of the text. The search system then calls computer programs into play which accurately and, with unbelievable speed, locates words previously stored, comparing locations and performing other manipulations. The computer then, through the device of a high speed printer, prints the results of the research, thus producing what we call a "LITE search report." With this extraordinary system, we are able to search vast quantities of written material in almost unbelievable time. A detailed technical description for the LITE System is available from the LITE office upon request.[3]

It should perhaps be emphasized here that the LITE System has the capability of operating with virtually any written material. As I have stated previously, LITE's searches are processed by the computer in an average of 1.5 minutes per search, and are printed on the high speed printer at a rate of 1,000 lines per minute in an average of 1.7 minutes. The significance of this will impact upon you when you consider that the computer can accomplish working with staggering masses of material measured in the millions of words. The miracle is that it can accomplish the task at all, and that it does so with such dazzling speed and with accuracy. The System works efficiently and is producing some very interesting results.

Upon occasion, the results are sensational.[4] In view of this explanation of the LITE System, I would like to have you consider the application of this technology to your own work and subject matter areas and problems as I tell you further about the LITE operation.

A computerized system is only as useful as the data bases which are selected for storage. LITE's principal data bases are: The United States Code, Published and Unpublished Decisions of the Comptroller General, Court-Martial Reports, United States Court of Claims Decisions since 1956, Department of Defense International Law Materials; and two new data bases, United States Reports decisions of the Supreme Court since 1953, and Board of Contract Appeals decisions. This imposing array of legal materials, with other miscellaneous LITE data bases, compose a data bank of over 106,000,000 words which are stored and available for computer processing with the LITE System. One does not have to be a computer expert to comprehend that this is indeed a hugh data bank. For practical reasons we process searches against individual source materials, an example being United States Code.

I would like to take a moment to provide a brief description of LITE's service, who may use it and how it is obtained.

LITE's operation is best described as a research service center. Our service is properly described as a customized service. LITE Staff Attorneys are available at all times to receive requests from users (about 99 percent by telephone) and to process them to the computer. Each request and each question is individually considered. With this personal attention, the LITE Staff Attorney provides the liaison - the "bridge," so to speak - between the user and the computer. The user need have no knowledge regarding the computer or any of the procedures employed to be able to benefit from LITE service. He needs only the ability to communicate his question or problem on the telephone or in writing. We emphasize the simplicity and ease with which one obtains service from LITE.

Response time, of course, is very important, and at times crucial. LITE strives to produce a search product in the shortest practicable time, generally 24 hours from the time of receipt. The results are then discussed with the user by telephone and the results airmailed to him that same day.

There are certain features of LITE's service which we feel are advantageous and are worthy of noting here:

1. The system provides easy access to all users, some of whom are at stations widely scattered throughout the world.

2. It is possible to "batch," that is, group, searches for processing at one time, thus achieving maximum economies from the computer.

3. LITE's full test concept unquestionably provides the maximum of flexibility in subsequent retrieval. With full text, we can locate references to the most obscure unique words easily and efficiently with this computer system. After 10 years of use of this system, we can state unequivocally that there is much more flexibility and the results are far superior from the researcher's standpoint. Under the LITE System, we can locate precedent based upon obscure words and phrases, or by unlimited combinations thereof, thus being able to trace a line of precedent both backwards and forwards. No other system permits such flexibility in research.

4. The computer, of course, opens a new world of research, with unprecedented speed and accuracy. More than this, some kinds of research can be undertaken for the first time with the aid of this modern technology.

This presentation has thus far concerned itself with the search function. Of almost equal importance is the capability for the producing of special products using this computer technology. I would like to discuss these with you briefly.

Once the written material has been loaded into the computer, and especially where full text has been loaded, as with all of LITE's data bases to date, it is possible to create indexes using computer technology with an ease, economy and accuracy never before seen. Some examples are: A KWIC index of Comptroller General Decisions; the first KWIC index to the Constitution of the United States; KWIC indexes to selected titles of the United States Code. This is truly an outstanding ability, for which we have received considerable favorable attention.

The problem of existing, manually prepared, indexes is well known in the research field, and especially to all librarians. Until now, the only convenient access to written material has been a table of contents or a manually prepared index. There appears to be general concurrence that these indexesvary widely in quality. In any event, more time is probably wasted trying to use inadquate indexes than librarians and legal researchers care to admit. The utility of a given index often depends upon the ability of the researcher to define the indexing scheme of the particular index at hand. Further, particularly in precedent materials collected over a long period of time, it has been observed that indexing in different period of time sometimes lacks consistency, possibly due to the fact that different persons were involved in the processes.

The computer prepared index, which we call a "KWIC (Key-word-in-context) Index," avoids many of these frailties. It is difficult to describe in a few words what the KWIC index is like. A sample has been provided in the packet made available to you. Perhaps it might be described as the product of taking the full text of individual lines of the material and extracting therefrom every single meaningful word for use as an indexing word. The concept, then, involves the expansion of full text into a massive index of all words (except unindexed words). This is the exact opposite of manually prepared indexes which proceed upon the basis of a list of preselected words for indexing. If you have not previously studied such a KWIC index, we recommend that you do so. This technology has the potential for outmoding all present methods of indexing by manual means.

This is the LITE story very briefly related. What are the implications for librarians? May I suggest just a few?

1. There is an option to what has previously been known as research procedure heretofore. The computer is here to stay and will affect the world of the librarians.

2. LITE is readily accessible source of assistance to any in the Federal establishment, and to State and Local agencies.

3. For non-DOD agencies, it would be wise to begin budgeting for LITE search service in future years.

4. LITE is the only known source, outside of the U.S. General Accounting Office, for the Unpublished Decisions of the Comptroller General of the U.S.

5. LITE has a unique collection of DOD-related International Law materials.

6. We all should look for new applications of the KWIC indexing technique. As computerized photocomposition comes into wider use, the potential of source data automation will become more and more apparent. The availability of magnetic tapes of materials as they are being initially prepared for printing for nominal cost under these circumstances will open up the possibility for the creation of data bases which were never previously considered.

It is possible that data bases will be created primarily for the purpose of creating indexes of the material. I see this as one of the significant advances in the technology which obviously will affect the work of all librarians.

7. As librarians gaining experience in the use of this form of computer assisted research, you should discover this technique useful for:

a. Indepth research.

b. Searching for isolated cases.

c. Research when time will not allow for manual research.

d. Some research tasks which are not even feasible by manual methods. Undoubtedly with experience with computerized research you will discover other and perhaps even more important uses for LITE.

We are often asked for the more detailed instructions concerning the obtaining of search service. If you are from a Department of Defense agency or the United States Coast Guard, you need only place a telephone call to obtain assistance. For agencies outside DOD, a similar call will serve to elicit information as to the search to be requested, the cost thereof, and the method of transferring funds.

Most of us recognize that we are living in a world different from our forefathers. Many of us have seen profound changes even during our lifetime. The world of research has not been untouched. The coming of the computer age has brought many changes to our lives. It has come to the field of research. First applied to the legal profession, the computer is bringing its revolution to the library. Although some fear change, I look with eagerness and excitement at the revaluation in research which LITE's System represents. It means that some of the shackles and drudgery of the past can be thrown aside. It means that professionals will have more time for their true function. It means that a new tool for research is here offering to all of us the best opportunity to be professionally creative, backed by quality research, and that society itself will be the beneficiary.

I invite you to join me in leading others into this new world of research.

Footnotes

1. The address is - Chief, LITE (AF/JASL)
3800 York Street
Denver, CO 80205

The telephone numbers are:

Commercial	303 825-1161 Ext 6433
FTS	303 825-6433
Autovon	555-6433

2. Currently LITE uses an IBM 360/65 computer using direct access storage devices and high speed printers (1,000 lines a minute).

The current computer configuration includes IBM 2314 direct access storage units and 1,600 bpi (bits per inch) magnetic tapes. Over 100 IBM 2316 disc packs for LITE's data bases and programs, are required with a maximum of 8 packs "online." Over 106,000,000 words are now stored for computer processing.

3. See AF JAG Law Review, Special Issue on LITE, Winter 1972.

4. Sample searches are available upon request.

MULTIPLE MEDIA--POINTS OF ACCESS, USE, AND STORAGE

Isabelle Mudd
Education Specialist
Bureau of Indian Affairs
Bethel, Alaska

Housing, circulating and maintaining the multiple media found in the modern school media center can be an exciting challenge. Bethel Agency Library/Media Center has the additional challenge of mail order circulation. Although there is very little walk-in traffic, the rapid turnover in staff makes it essential that all the media be housed in a way to make it easily accessible to people totally unfamiliar with standard library procedures. Media dealt with includes books, filmstrips, sound filmstrips, film loops, video tape (reel to reel and cassette), audio tape, kits, charts, study prints, paintings, and sculpture. Lack of space has added to the challenge.

I bring you greetings from Alaska and welcome this opportunity to tell librarians in the smaller states about library work in Alaska.

The library which I administer is operated as part of the Education Program of the Bureau of Indian Affairs, Bethel Agency, Juneau Area. The entire state of Alaska is included under the administration of one area office, located in Juneau. Bethel Agency is one of five in Alaska and is in the southwestern part of the state. (Slide)

The area shown in the slide is 100,000 square miles or about the size of the state of Arizona. According to the 1970 census, 13,802 people live in this area and, of these, 12,427 are Alaskan Natives, mostly Yupik Eskimos. Our Library/Media Center serves 2,600 students located in 32 schools. We serve 126 classrooms so you can see that these schools average less than four classrooms each. The largest, which is Hooper Bay, has ten and there is one single teacher school. Students in these schools range from kindergarten through the ninth grade. Bethel itself is a native city with a population of over 2,000. The State operates the school in Bethel where there is also a regional high school. The State operates schools in some villages in the region.

The villages in the Bethel Agency are located mainly on rivers and there is quite a bit of river traffic. However, there are no roads so access from Bethel is mainly by air. Some of the villages are isolated from the outside world during freeze-up in the fall and break-up in the spring because they are dependent upon planes equipped with either floats or skiis.

Our objective is to provide complete school media services to these schools located in this remote region in Alaska. We feel that the children in these villages need access to a large quanity of quality materials--perhaps even more than the average child. They must, because of their isolation, experience many things vicariously. This also requires a variety of media.

We purchased the complete collection of media as listed in the ELEMENTARY SCHOOL LIBRARY COLLECTION catalog, a standard selection tool for school media centers. (Slide) Since it is computer produced, it can easily be up-dated and publishes a new edition each year. We have used it as the official catalog for our library, purchasing each new edition and adding the titles added to it to our collection annually. The first year of operation we furnished each school with a copy of the catalog; the second year we put one in every classroom. This year we placed one copy of the new edition in each school. This may not be an ideal method of access to our entire collection since we do have some materials not listed in this catalog, but it has proven to ba a practical one. Each teacher has a library book catalog from which he and his students may order materials from us. People who live in remote areas of the world are acquainted with Sears, Roebuck and readily adapt to using a catalog to order library materials. Obviously, there was neither money nor staff to allow us to produce our own catalog.

The ELEMENTARY SCHOOL LIBRARY COLLECTION catalog provides a classified section. (Slide) and author, (Slide) title, (Slide) and subject (Slide) indexes, as well as short descriptive annotations for each title. Teachers are given grade levels and reading and interest levels for the media.

Through this catalog, both students and teachers have access to over 10,000 titles. We also provide other services. Recreational materials are sent automatically to each teacher upon receipt of a completed form from the teacher indicating number of students, grades, and reading levels. They also tell us what subjects they like generally so we can further tailor the box of materials to their interests.

We have a professional collection of books supplementing those listed in ESLC with titles we find dealing with topics especially geared to our needs. We also subscribe to about 75 professional journals, distribute copies of the tables of contents of these to the teachers and circulate the journals upon request. We have the ERIC indexes and bibliographies as well as a set of the microfiche dealing with research on the disadvantaged child. Microfiche readers are available for loan to any teacher wishing to make use of this resource. We also have subscriptions to many popular magazines for teachers to browse when selecting titles to order for their schools as well as for teaching how to use the READERS GUIDE TO PERIODICAL LITERATURE.

One of the services which most teachers appreciate is the McNaughton collection. We subscribe to the plan and have a basic collection of 200 current adult books. Each month we receive twenty new books and return twenty to the company. Lists are made for the teachers by copying the catalog cards with an electrostatic copier and sending a copy to each school. With more staff, this list would ideally be sent to each teacher.

One service which proved very popular and which we provided for a short time was the preparation of resource units. We put together a package of multi-media materials to fit a unit at a teacher's request. I hope to provide this service again and have been doing some of it myself this fall. Since we do have some media not listed in the ELEMENTARY SCHOOL LIBRARY COLLECTION catalog, when we receive an order from a teacher which indicates that he is working on a special topic, we supplement it if we have related materials he did not order.

As you may have already guessed, our library/media service was established by ESEA Title funds. However, it is now in its third year of providing service to the schools and is no longer eligible for ESEA funding. Both the Juneau Area and the Bethel Agency are to be congratulated for recognizing a successful project and for putting forth the extra effort necessary to include it in the regular education program.

Most libraries I have known have suffered from at least three ills--either lack of staff, lack of space, or insufficient funds for building an adequate collection. Because we were funded in the beginning by Title monies, all of our positions were and still are temporary. The Bureau of Indian Affairs has personnel ceilings as do all federal agencies. Over the three years we have operated, we have had nearly twenty different employees although our average staff has numbered three, including myself. None of these other staff members has had any library experience and most come with very little knowledge of what a library does. Because of the temporary nature of the job, they move on to better positions. Also, we have drawn from Neighborhood Youth Corps and the student population for part-time help. Naturally these people are not at all permanent. Still, there is a library to be operated and a variety of routine tasks to be completed as efficiently as possible. During the first year of operation we circulated about 20,000 items and last year over 27,000. This is a lot of charging and discharging.

Our circulation file is arranged by title and we find that this presents little difficulty for even part-time student help. We use a keysort charge card (Transparency) which was designed especially for us and have access to the file by village and loan period. One problem we have encountered is in charging out media and equipment. Not everyone chooses the same title or identifies a piece of equipment the same way. For example, to me a projector is first a projector and then 16mm or filmstrip or Bell and Howell or whatever. Many list it by type or brand making it difficult to locate the charge card among the 7,000 in the file. We have devised a standard list of equipment to be used in charging these out for the purpose of circulation as well as inventory control.

Sometimes the librarian's concept of a library is much grander than what the layman is considering. This was the case in Bethel Agency. Consequently the space assigned for operating the library was quite inadequate. Fortunately this was recognized and we were located in an area where we could expand across the hall, into a back room and even upstairs, directly above our original space. However, in order to get adequate shelving into our space, most of our aisles are a meager two feet wide--too narrow to accommodate a loaded book truck.

With as much as possible crowded into a relatively small space, we are not able to achieve the ideal shelving arrangement for a multimedia collection: i.e., to house all media together by subject regardless of format. The ideal arrangement for a school media center where the client comes to browse is to have both print and non-print materials on one subject shelved together. This requires more than an average amount of space.

Fortunately our needs are not the same as the usual school media center, therefore we have been more flexible in our housing of the materials. Also more traditional, I suspect. We shelve by format and then by subject. All of our media is classified by Dewey as are our books. This standard was set for us by the ELEMENTARY SCHOOL LIBRARY COLLECTION catalog which we adopted as our guide.

Books are arranged in the usual manner. We have used divider type shelving for picture books which are often larger than usual and also quite thin. (Slide)

Are you all familiar with the filmstrip cabinets or shelves with a hole for each filmstrip? (Slide) These may have been adequate for a small, static collection of filmstrips arranged by accession number, but did you ever try to use one for a collection which is expanding and is arranged by Dewey? I have and it was like a perpetual Chinese checkers game--no matter where I allowed for expansion, the spaces were not in the right place! We keep our single filmstrips in special filmstrip shelving. (Slide) As you can see these allow for interfiling and the shelves hang easily on regular library steel shelving. Ours suffered a bit in the shipping, but then many things coming to Alaska arrive in less than perfect condition.

Filmstrips often come in sets of two or more. At first we considered placing these sets on the special shelves with the single titles, but then what would we do with the guides or booklets which usually accompany the sets? Most of these sets are already packaged in standard sized boxes, so we arrange them by subject and place them on regular shelves adjacent to the single filmstrips. Most teachers distinguish between a single filmstrip and a set on the order cards, so it is easy for the person filling the order to know where to look.

Special shelving is also available for film loops. (Slide) This is narrower than standard sized shelving and allows for a better utilization of space. One can put fourteen of these shelves in a standard ninety inches high section of shelving. These shelves could also be used for microfilm.

Cassette shelves are also available. (Slide) One can easily put fifty cassettes on this shelf and still have room for interfiling.

Probably one of our biggest problems has been with the sound filmstrips. There are so many peices to keep together. Even a single title has at least two parts and more often three--a filmstrip, a recording, and a guide. We finally discovered an inexpensive method for shelving these so we can locate them easily by call number. (Slide) These plastic bags are arranged by Dewey and we find that they will even hold a complete set of sound filmstrips as well as a single title. This allows us to shelve all our sound filmstrips together.

Study prints are especially large, most of them are at least fourteen inches by eighteen inches and some are even bigger. For these larger items we have used both sides of double-faced shelving--straight through on both sides--and used four or five of the oversized bookends to keep them upright. We have found that the large bookends in combination with the bookends which hang down work very well for this purpose.

Most of our video tapes are in series of thirty or more programs and we do not have very many different titles. These are now arranged by title and not classified, but I suspect that we will find that we will need to use standard library cataloging and classification on these also as the collection increases. The ESLC classifies records and we have followed their guide. Our collection of records to supplement an elementary school curriculum is spread throughout the classification system since we have material on a variety of subjects.

We have yet to arrange our painting collection for easy access and just received some sculpture. I welcome any suggestions you might have for arranging these items, remembering we must have a simple system.

Since we circulate our materials by mail and during a time of the year when temperatures can be extremely cold, we do have some unique problems. To give you an idea of what can happen to some plastics when it gets down to a minus fifty, one of the student employees at the University of Alaska Library in Fairbanks, wearing an imitation suede jacket, fell down one cold night and broke his plastic jacket!

As you know, filmstrips are packaged in especially fragile plastic containers. Cassette tapes come in plastic too and some of the outer cases are quite brittle. We use tote tubes (Slide) for protecting our filmstrips in our mailing boxes. If the item is a sound filmstrip we put the cassette in a soft plastic outer case. These are then placed with other items inside our mailing cases. (Slides) Study prints must be shipped in cardboard containers as the soft plastic envelopes they come in seem to shatter in cold weather. Charts and prints and similar materials are all laminated for protection before they circulate.

We have found that maintaining the non-print media requires more time than a book collection. For example, we clean each filmstrip after every circulation using a special silicone treated cloth to lubricate as well as wipe off fingerprints. Also we must check to be certain the filmstrip is in the right container. We must also check filmloops in this manner and look for damage. Filmloops can suffer burn holes and crinkling in the case. These can be spliced and since they cost nearly twenty-five dollars each, time must be allocated for this work.

One basic principle can be concluded from most of the above practices; that is, when handling multiple media materials, the closer one adheres to standard library procedures the easier the work seems to be. It is much easier for people with little training to work successfully in a library when all of the routines are similar. Although non-print media does require some special handling, basically it is all shelved the same and this is very important. We must standardize our procedures as much as possible.

Now, I may seem to contradict myself, because librarians must be ready to adjust to the needs of the client. I maintain, though, that if the procedures are standardized, it will be easier for the client to locate information as it is for the staff to maintain the shelves. Librarians must always keep in mind that libraries are to be used by people. We have a responsibility to arrange the information in our media centers or libraries or whatever they are called in such a way that the client for whom the collection is intended can find things. We recognize that in the beginning he might well be intimidated by the orderliness of the library, but with a little training, he should be independent in his search for information a major portion of the time.

Back when I was working as a serials cataloger in a large university library, my supervisor, a librarian with over forty years experience, used to tell us that cataloging was ninety-five per cent common sense. Perhaps this might be said of librarianship. We learn the philosophy and methods in library school or on the job, but so often we must apply just plain common sense to solve our problems. Some say that the trouble with common sense is that it just is not all that common. Let's hope that in libraries it is!

INTERLIBRARY LOANS IN A SMALL RESEARCH LIBRARY.

Ell-Piret Multer, Librarian, U. S. Bureau of Sport Fisheries and Wildlife, Northern Prairie Wildlife Research Center.

I have been asked to discuss interlibrary loans in the small research library. When Debby Eaton asked me to participate in this program, I told her that I would tell it like it is; I intend to fulfill that promise.

So that you can visualize my point of reference, I'd like to tell you about the library at the Northern Prairie Wildlife Research Center in Jamestown, North Dakota. We have approximately 1200 books, and receive almost 100 periodicals. My part-time assistant and I maintain the library for 30 biologists engaged in research in the field of wildlife ecology. They are the only ones who use the library, although occasionally other people drop in. This occurs infrequently since the research center is located in a rural area in the middle of the North Dakota prairie. Since the whole population of North Dakota is half that of the Denver metropolitan area, we do not have a really large library in the state. The closest university library is 100 miles from us. We are fortunate to have a small private liberal arts college in Jamestown, the closest town to us. I use some of their materials, but the library is geared primarily for the undergraduate student. In my isolated library, interlibrary loans are an important part of my job, and contribute much to the effectiveness of the research conducted at the Center.

I have formulated a pragmatic approach to interlibrary loans, or as I call it, interlibrary borrowing. It must be done quickly, effectively, and cheaply. Being a personal librarian to such a small number of researchers presents a tremendous psychological impetus to procur the material they need. Because of this, I have had to modify some interlibrary borrowing methods, as well as formulate new ways to get materials for their use.

First of all, when I get requests from the biologists I assume the needed material is important enough to warrant an interlibrary loan. I don't screen these requests for material that may be of marginal interest.

The requests come to me in an informal fashion. Ideally a form is filled out giving me the complete citation, as well as the source of the reference. This happens very rarely. Verbal requests are common. The usual procedure is a slip of paper on my desk saying, "Get this for me, will you, Ell?"

Whatever the form of the initial request, the difficult part is getting enough information from the requestor. Many times a request will be initiated by the phrase, "I seem to remember this publication...." What may be first a reference question, and then a letter for a free copy, is often disguised as an interlibrary loan request.

When is an interlibrary loan request not an interlibrary loan request? For me the answer to that question is "very often". Most of the requests I get from the researchers are for materials available from a variety of sources. I could get these materials through interlibrary loan, as a large library would have to do, but for me it is more reasonable to use one of the following methods if possible. The decision is based on the time available, the urgency of the request, the cost of the item, its importance to the Center library, as well as the reference tools in the library.

It is much easier to send a request for a reprint directly to the author of a paper, than to request a photocopy of the article from another library. Most of the biologists prefer using a reprint rather than a photocopy. Preprinted reprint request cards with adhesive self-addressed labels reduce my work to a minimum. If the address of the author is not known, it can be found in an abstracting service, a professional directory or membership list, or in the address file maintained by your organization. If the article desired is not recent enough for reprints to still be available from the author, other methods must be used.

Title page bibliographies are another good source. Several title page bibliographies are on the market which will photocopy recent articles from the journals they list. The one I subscribe to, Environmental Periodicals, charges 10¢ per page of photocopy with a 50¢ minimum order. If I can't get a reprint from the author, I will occasionally use this service. It is faster than asking a library for a photocopy charge estimate.

I write many letters for free materials. So much material is available from organizations at no cost. We all know how much free material is available from our own agencies. When requesting a copy of a publication, I make a copy of the letter as a record of outstanding requests. If the publication is received with an invoice attached, the copy can be used as justification for the payment of the bill. If the publication does not justify a purchase, I merely send it back.

Some interlibrary loan requests are for material that should be purchased for the library collection. This is one of the ways I find out about current material that is of interest to the biologists. Often, if it is recently published, it is impossible to borrow. The interlibrary loan request is modified again. This time it results in a purchase.

I also use the resources within the research center. Many of the biologists on our staff have been collecting material in their field for years. They are an excellent source for reprints, specialized journals, as well as other publications. I see no reason to waste the time of another library with an interlibrary loan request when the material I need is in the office next door. In the small library it is possible to know the interests of the patrons, so that locating needed items is not a random search.

Some material is possible to obtain with a telephoned request. This saves time if you know where to direct your request. When a citation is difficult to transmit over the phone, or the location of the material is not known, a memo is better. Call your friends; they will understand if you have a difficult request to transmit.

If one or a combination of the preceeding methods does not work, or is not applicable to the request, I fill out the interlibrary loan form and send it off. The destination depends upon several factors.

Initially I direct my requests to North Dakota libraries, if I know they have the material. If not, I submit my request to the nearest library that does. If the location of the material is uncertain, rather than use a trial and error method to locate it, I send my request to a union list (See Appendix I), or to the Department of the Interior library in Washington, D. C. I dislike doing the latter because their service is so slow. I have had the same experience with other large government libraries.

A routine interlibrary loan request is no problem. The citation I am given is complete and a source for the material is available. Service is remarkably fast from North Dakota libraries. Out of state requests are slower, and photocopy charges can be costly, but nevertheless, the routine request is relatively uncomplicated.

The difficult request is usually characterized by missing information. Depending upon the seriousness of the omission, I will either try to locate the missing information, or I will merely send the request the way it is. According to the Interlibrary Loan Code, I should screen out all applications for loan materials not having the complete bibliographic information. I do not send incomplete requests back to the biologist, however, unless the material is irretrievable. On the interlibrary loan form, I will note that the citation is not complete, and ask that the lending library try to locate the material.

Less frequently other problems require that I send requests unverified. Foreign publications, for example, are difficult to verify with the few reference tools I have available. If I am not in a hurry, the reference department of the Interior Department Library in Washington, D. C. can help me with these. University library reference departments are also very helpful.

Cooperate with your local libraries. Get to know the people who handle interlibrary loans. Dealing with people you know makes borrowing from them less formal. Joining your state library association is one way of accomplishing this. Contribute your serial holdings to the state or regional union list. Encourage the libraries in your area to call you if they have problems locating material in your subject specialty.

Occasionally visit a large reference department and look over the reference material in your subject interests. New materials are being published that might be of real help in your interlibrary loan work. In a small library it is easy to get behind.

Advertise interlibrary loan service to your patrons. Many of them may not be aware of the scope of interlibrary loans. Let your patrons know that any material they might need is potentially at your fingertips. Don't assume they know what an interlibrary loan is. Tell them, even if they don't ask.

Read Sarah K. Thomson's Interlibrary Loan Procedure Manual. It will give you the basic information about interlibrary loans, although the guidelines set up for the borrowing library are sometimes too idealistic for the small borrowing library to follow. (See Appendix II)

Photocopy charges can be difficult to estimate without the help of either a file of charge policies, or a guidebook indicating policies of the major libraries. Cosby Brinkley's Directory of Institutional Photocopying Services has just been revised to include up to date information. This is a valuable reference book for the library that does much borrowing. A file indicating the charges made by lending libraries used most often may be equally useful. I have also noticed that the smaller the library, the less the charge. Let this guide your choice of lending libraries.

Don't rely exclusively on the Union List of Serials for the location of journals. Use your state list if you have one, or perhaps a regional list. Union lists are also available for various agencies in the federal government. The Environmental Protection Agency has its own list, which can be obtained free of charge. Many individual libraries also maintain their own lists. Many of these might be more useful than the Union List of Serials for your individual library.

The small library might derive the most benefit through cooperation with libraries having similar subject collections. Many of these libraries are within the federal library network. I'm sure we all have a system of informal cooperation set up within our agencies. That is one of the benefits of the Federal Library Workshop. It behooves the librarian of a small library to know where these other libraries are. Libraries within state agencies, as well as universities, can be a valuable source for interlibrary loan materials. Most of these are small libraries with personnel more than happy to cooperate. And that is what this conference is all about, isn't it?

REFERENCES

Thomson, Sarah Katharine, Interlibrary Loan Procedure Manual (Chicago: American Library Association, 1970)

Nitecki, J. Z., ed., Directory of Library Reprographic Services (Weston, Connecticut: Microform Review, 1973)

APPENDIX I

Selected List of Union Catalogs[1]

California

Union Catalog at the
California State Library
Library/Courts Building
P. O. Box 2037
Sacramento, Calif. 95809
Telephone 914 445-5730

Colorado

Bibliographical Center for Research
Rocky Mountain Region, Inc.
1357 Broadway
Denver, Colorado 80203
Telephone 303 266-0851

Georgia

Union Catalogue of the Atlanta-
Athens Area
Library Building, Emory University
Atlanta, Georgia 30322
Telephone 404 378-2811

Nebraska

Nebraska Union Catalog
Nebraska Public Library Commission
State Capitol Building
Lincoln, Nebraska 68509
Telephone 402 473-1545

New Hampshire

Union List of New Hampshire
Libraries
New Hampshire State Library
20 Parker Street
Concord, N. H. 03301
Telephone 603 271-2144

North Carolina

North Carolina Interlibrary
Center
Louis Round Wilson Library
University of North Carolina
Chapel Hill, North Carolina 27514
Telephone 919 933-1326

Ohio

Cleveland Regional Union
Catalog
Case Western Reserve
University Library
Cleveland, Ohio 44106
Telephone 216 368-3522

Pennsylvania

Union Library Catalogue of
Pennsylvania
3420 Walnut Street
Philadelphia, Pa. 19104
Telephone 215 382-5104

Tennessee

Union Catalog of Books in
Nashville Libraries
Joint University Libraries
Nashville, Tennessee 37203
Telephone 615 254-1429

Vermont

Free Public Library Service
Montpelier, Vermont 05602
Telephone 802 223-2311

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[1] Sarah Katharine Thomson, Interlibrary Loan Procedure Manual (Chicago: American Library Association, 1970) Appendix O.

Washington

Pacific Northwest Bibliographic Center
University of Washington Library
Seattle, Washington 98105
Telephone 206 543-1878

Canada

Union Catalogue Division
Reference Branch
National Library
Ottawa, Canada
Telephone 613 996-2150

APPENDIX II

Interlibrary Loan Checklist for Borrowing Libraries[2]

1. Follow the Interlibrary Loan Code.
2. Instruct your readers.
3. Screen requests carefully.
4. Verify citations.
5. Provide accurate and complete bibliographic citations.
6. Do not use initials or abbreviations unless they are part of the actual title of the item.
7. Find out before sending the request what library owns the item wanted.
8. Check the lending policy of the lending library.
9. Follow the directions on the interlibrary loan forms
10. Request photocopy when practicable.
11. Revise requests carefully.
12. Follow all instructions and regulations of the lending library.
13. Return materials properly.

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[2] Sarah Katharine Thomson, *Interlibrary Loan Procedure Manual* (Chicago: American Library Association, 1970) p. 42.

MEMBERSHIP IN THE SPECIAL LIBRARIES ASSOCIATION–WHAT IS IN IT FOR THE FEDERAL LIBRARIAN?

Mary Ann Paliani
Library Supervisor

Dow Chemical U.S.A., Rocky Flats Division, Golden, Colorado

Abstract. A review of the Special Libraries Association's (SLA) structure and membership services. Particular emphasis is placed on the excellent internal organization that facilitates communication between the association and the members, and between the members themselves at the international, national, and local levels.

INTRODUCTION

In this era of proliferating organizations, you might reasonably ask–what is so special about the Special Libraries Association, and why should one spend $30 per year in membership dues, and invest hours of one's own time in still another library-information retrieval organization. A good question–one, hopefully, that can be adequately answered during this panel session.

But before pursuing the matter, let me take a few minutes to clarify what is meant by "special library" and "special librarian," and discuss how the special librarian relates to SLA's current membership objectives. In a recent pamphlet, SLA offers the following definitions:

> "A special library is just that–a library which is unique because it has been created expressly to serve a particular group of users, all of whom have a need for material of a highly specialized nature. The special librarian obtains and organizes information for use before his specialized clients are aware of its existence. The library may serve one business firm or an entire industry, an art museum or a TV network." (1)

You may now think that the Special Libraries Association is exclusively composed of just such *special librarians.* Wrong! Although the majority of SLA members are associated with this specialized branch of librarianship, the association is by no means limited only to this group of individuals. A prime SLA goal is to advance and improve". . .the communication, dissemination and ultimate use of information and knowledge for the general welfare and the advancement of mankind." (2) To this end, SLA is welcoming into the membership a much broader spectrum of individuals, who have an interest in library and information science and technology–whether from the educational, scientific, or technical point of view. For a statement of membership requirements see Appendix A, page 6. The current membership includes a growing number of public librarians, school librarians, and instructors in information science who share with special librarians a mutual concern in the effective dissemination and utilization of information.

THE ORGANIZATION

What is the organization and structure of SLA? As an international group, SLA currently has a membership of more than 8000 professional librarians and information specialists. A dual structure permits SLA to function on a regional basis, and also by subject field. The regional structure consists of 43 local chapters that elect officers, hold meetings, issue local bulletins, run special projects, offer consultation services to libraries and organizations in their area, and serve as employment clearinghouses. The second structure consists of 25 divisions that represent specific subject fields. Similar to the chapters, these groups also have officers, special projects and bulletins. The divisions link members by subject interest, whereas, the chapters link them by locale. The practical result of this arrangement is that a member has the opportunity to interact with his local colleagues, as well as, with those around the world, who are interested in information retrieval and dissemination in his particular field of interest–chemistry, for example. Finally, SLA maintains 10 student groups. All chapters, divisions and student groups coordinate with the Headquarters Office in New York City. Appendix B, page 7 lists all SLA chapters, Appendix C, page 8 lists the divisions, and Appendix D, page 9 lists the student groups.

THE NATIONAL OFFICE

From the national level, what does SLA offer the members? Among the routine services and activities, SLA publishes source books, bibliographies, monographs and directories, along with three periodicals: *Special Libraries* (a journal containing papers, current news items and a classified employment section, that is distributed, at no extra charge to members), *Scientific Meetings*, and *Technical Book Review Index*. SLA also manages a scholarship program for people wishing to pursue graduate study leading to a master's degree at a recognized school of library or information science. At its annual conference, SLA operates an employment clearinghouse which brings together employers with job openings and SLA members seeking new positions. During a recent conversation with Dr. Frank McKenna of the Headquarters staff, I learned that a full-time placement activity may also be established at SLA's New York City office in the near future. The national office has been responsible for running a salary survey of its members each year, and publishing the results in *Special Libraries*. In my opinion, this latter activity is one of SLA's most important contributions to its members, since it provides the library manager and the salary administrator with an excellent tool for evaluating the salaries of library personnel. Finally, SLA, as an organization, can and does communicate more forcefully and persuasively than the individual librarian, with governmental agencies and the publishing industry, about library problems.

THE CHAPTER

Moving to the opposite end of the geographical spectrum, let us examine how SLA contributes to its members at the local chapter level. In my opinion, one of the greatest assets of any organization exists in the extent to which it can provide effective interaction and exchange among the members--giving them opportunites to meet with each other, communicate with each other, exchange ideas with each other. The local SLA chapter is eminently suited for accomplishing such a task as a result of having two communication vehicles at its disposal. The chapter meeting on the one hand, and the chapter bulletin on the other, offer members two types of opportunities for sharing their information and their expertise with each other. But, perhaps, such interchanges are not important in your estimation. If not, reflect a moment on these questions:

> How many of the professional librarians in your area do you know well enough to comfortably approach with a library problem that you have?
>
> Do you know who, in your area, is working on innovative projects that you might be able to use in your own organization—such as a new approach to library orientation programs?
>
> Suppose you were interested in developing a particular system or service, would you know who in your locale could give you input and advice—so that you would not spend valuable time reinventing the wheel?

If you have trouble answering these questions, perhaps the chapter has something to offer you.

What other assistance does the chapter provide? A Consultation Service is available free of charge to any organization that is interested in establishing, reorganizing, or operating a special library or information center. The local chapter selects and sends an experienced area librarian to the requesting facility for a half day to study the problem and offer recommendations. Thus, the chapter performs a valuable public service for SLA and non-SLA affiliated librarians and organizations, by making available to them some of the best professional expertise in their locale. Still another service is rendered through the chapter's Employment Clearinghouse, which offers help to members and non-members alike who are seeking positions in the area, and to local employers who have openings in their organizations.

Chapters make important contributions to their members and to the library world-at-large through their special projects. Oftentimes, the value of such a project reaches far beyond the chapter's boundaries. Take, for example, the publication, *Specialized Library Resources of Colorado*, which is a project of the Colorado Chapter (3). This compilation of information relating to more than 200 special libraries and collections throughout the state, has been requested by organizations from all over the country. And, of course, locally, the publication has significant value. Another example of an important project includes the Rio Grande Chapter's publication, *Dictionary of Report Series Codes* (4). Certainly, those of you who work with the report literature with any frequency are familiar with this volume and can fully appreciate its value in the report searching process.

The continued professional education of their members serves as another concern and responsibility of SLA chapters. Such concern can be readily identified by the array of quality programs, seminars and workshops that the chapters routinely prepare. Let me give you some examples. On one occasion the SLA chapter in New York City collaborated with the American Society for Information Science, and the Association for Computing Machinery to provide an unusually stimulating one-day workshop on computer languages and computer applications. Locally, the Colorado Chapter and the Rio Grande Chapter have been joining forces annually to produce 2-day workshops on a whole array of library topics–from problems in library communications, to the library in the year 2000. In the past, the Upstate New York Chapter has run a series of seminars on different topics in science and technology, such as metallography, for example, in an effort to update their members in various fields. Recently, the Colorado Chapter, along with the American Society for Information Science, and the American Records Management Association had a dinner meeting which featured a talk by a local expert on the use of holography in information retrieval. Routinely, the Colorado Chapter sponsors visits to local libraries and information centers. Last May, the Rio Grande Cahpter prepared a Translations Workshop that was open to all librarians. Through such programs the chapters broaden the intellectual range of their members, and sharpen their professional expertise.

THE DIVISION

Like the chapter, the division brings people together, or at least makes them aware of each other–but at the subject-interest level. At the annual SLA conference, each division sponsors programs, meetings and purely social events, which are intended to introduce members in a given field, like chemistry, or nuclear science, to one another, and to acquaint them with problems, interests and needs in their subject area. Between conferences, the members are linked by the division's bulletin and special projects. Similar to the chapter, the division is often involved in significant projects that contribute substantially to the library world. For example, the Chemistry Division has prepared a publication entitled *German Chemical Abbreviations* (5) which is a collection of 2,500 abbreviations with their English and German meanings. Hence, at the division level as at the chapter level, one has the opportunity to cultivate a reservoir of professional contacts and collaborate with them on a wide range of projects that facilitate the information retrieval and dissemination process.

CONCLUSION

To sum up, SLA has many strengths–the most improtant being a unique internal organization which keeps the association from being remote and inaccessible to its members. SLA reaches out to its people, especially those at the grass roots level, bringing to them services, and professional assistance, and creating for them an intellectual climate to support their professional growth and development.

REFERENCES

1. *Special Library Sketchbook.* New York, Special Libraries Association, 1972. Page 1.

2. *Special Libraries Association: A Resume.* New York, Special Libraries Association, 1973.

3. Wynne, Allen, editor. *Specialized Library Resources of Colorado – 1969.* Denver, Special Libraries Association, Colorado Chapter, 1970.

4. Godfrey, Lois E. and Redman, Helen F., editors. *Dictionary of Report Series Codes.* Second Edition. New York, Special Libraries Association, 1973.

5. Wohlauer, Gabriele E. and Gholston, H. D., compilers. *German Chemical Abbreviations.* New York, Special Libraries Association, 1966.

APPENDIX A. Special Libraries Association Membership Requirements

Article II: Membership

Section 1. There shall be Members, Associate Members, Student Members, Retired Members, Sustaining Members and Honorary Members. Eligibility for and privileges of each class shall be within the provisions of these Bylaws. The Association committee concerned with membership shall be the authority on the eligibility of membership applicants. Within the terms of this article, a special library is defined as:

a. A library or information center maintained by an individual, corporation, association, government agency or any other group; or
b. A specialized or departmental collection within a library, for the organization and dissemination of information, and primarily offering service to a specialized clientele through the use of varied media and methods.

Section 2. **Member.** Member status shall be granted to an applicant who fulfills any one of the following requirements:

a. Has a graduate degree in library or information science;
b. Has a bachelor's degree or higher degree and has three or more years of professional experience in a special library;
c. Has at least seven years experience in a special library, determined by the Association committee concerned with membership to be professional experience. (One year of undergraduate college credit equals one year of professional experience);
d. Has a teaching position in a university or college and is engaged in educating students in one or more disciplines related to the professional aspects of special librarianship or information science;
e. Has a bachelor's degree or higher degree and has or has had general administrative responsibility for one or more special divisions or subject areas in an academic or public library.

A Member shall have the right to vote, to hold Association, Chapter and Division office, to affiliate with one Chapter and one Division without further payment, and to receive the official journal free.

Section 3. **Associate Member.** Associate Member status shall be granted to an applicant who has a serious interest in the objectives of the Association. An Associate Member shall have all the rights and privileges of a Member except the right to hold elective office in the Association or to be a Chapter President and President-Elect or Division Chairman and Chairman-Elect; to affiliate with one Chapter and one Division without further payment, and to receive the official journal free. Upon qualification for membership, an Associate Member shall become a Member.

Section 4. A **Student Member** shall be an individual enrolled at least part-time in a curriculum of library or information science, and may hold this status for no more than three years. This category of membership shall be available only to those joining the Association for the first time. A Student Member shall have the right to affiliate with one Chapter and one Division without fee, and to receive the official journal free.

Section 5. A **Sustaining Member** shall be a firm, an organization or individual desiring to support the objectives and programs of the Association. A Sustaining Member shall not have the right to vote or to hold office. With these exceptions, the privileges and benefits of this class of membership shall be determined by the Board of Directors.

Section 6. Status as a **Retired Member** may be requested by a Member who has reached age 60 and who has retired. In this connection "retirement" shall be defined by the Board of Directors with the advice of the Association Committee concerned with membership. A Retired Member shall have all the rights and privileges of a Member except the right to hold elective office in the Association or to be a Chapter President or President-Elect or Division Chairman or Chairman-Elect.

Section 7. An **Honorary Member** shall be an individual elected to this honor by the Association membership. At the time of his election, a candidate shall not belong to the Special Libraries Association. Nominations shall be presented in writing to the Board of Directors and may be proposed by one or more Association Members. Upon endorsement by a two-thirds vote of the Board, the nomination shall be submitted by the Board to the membership for election at an annual meeting. The total number of Honorary Members shall not exceed 15 at any one time and not more than two may be elected in any one year. An Honorary Member shall enjoy all the rights and privileges of a Member except the right to vote and to hold office.

"Bylaws." Special Libraries, 63:14s (August, 1972).

APPENDIX B. Special Libraries Association Chapters

Alabama
Baltimore
Boston
Cincinnati
Cleveland
Connecticut Valley
Colorado
Dayton
European
Florida
Greater St. Louis
Hawaiian Pacific
Heart of America
Illinois
Indiana
Kentucky
Long Island
Louisiana
Michigan
Minnesota
Missouri (provisional)
Montreal
New Jersey
New York
North Carolina
Oklahoma
Oregon (provisional)
Pacific Northwest
Philadelphia
Pittsburgh
Princeton-Trenton
Rio Grande
San Diego
San Francisco Bay Region
South Atlantic
Southern Appalachian
Southern California
Texas
Toronto
Upstate New York
Virginia
Washington, D.C.
Wisconsin

APPENDIX C. Special Libraries Association Divisions

- Advertising & Marketing
- Aerospace
- Biological Sciences
- Business and Finance
- Chemistry
- Documentation
- Engineering
- Food Librarians
- Geography and Map
- Insurance
- Metals/Materials
- Military Librarians
- Museums, Arts & Humanities
- Natural Resources
- Newspaper
- Nuclear Science
- Petroleum
- Pharmaceutical
- Physics-Astronomy-Mathematics
- Picture
- Public Utilities
- Publishing
- Science-Technology
- Social Science
  - Education
  - Social Welfare
  - Urban Affairs
- Transportation

Special Libraries Association: A Resume. New York,
Special Libraries Association, 1973

APPENDIX D. Special Libraries Association Student Groups

There are 10 Student Groups at:

- Kansas State Teachers College, Emporia
- North Texas State University, Denton
- St. John's University, Jamaica, N. Y.
- Simmons College, Boston, Mass.
- State University of New York at Albany
- Texas Woman's University, Denton
- University of California, Los Angeles
- University of Illinois, Urbana-Champaign
- University of Oregon, Eugene
- University of Toronto

"Special Libraries Association, a resume." *Special
Libraries*, 63:11s (August 1972).

GOVERNMENT DOCUMENTS: THE PRODUCERS
THE ROLE OF THE GPO's PUBLIC DOCUMENTS DISTRIBUTION CENTER IN PUEBLO, COLORADO

ALENE J. PICHLER
PUBLIC DOCUMENTS DISTRIBUTION CENTER
U. S. GOVERNMENT PRINTING OFFICE

ABSTRACT

The Public Documents Distribution Center is located near the Memorial Airport [illegible] miles east of Pueblo, Colorado. The Center, which officially opened in October 1971, fills orders from the bi-weekly Selected List of publications for all customers west of the Mississippi and mails out the Lists to all subscribers throughout the world. In November of 1971 a Sales Outlet was opened, giving the Center more flexibility and variety in completing orders. In January 1973, the Pueblo Center became the worldwide distributor for all publications appearing on Consumer Product Information Indexes, formerly handled by the General Services Administration. Pueblo began with the 1973 Winter Index, followed by the Spring Index and still maintains stock from both lists. Although the list is issued quarterly, this year there is no Summer Index. The Fall Index publications are beginning to arrive. A small amount of stock is also received on all publications appearing on flyers sent to mail list customers. By a description of how the Pueblo Center operates you will be able to better understand how to receive fast service.

BACKGROUND AND STATISTICS:

The Public Documents Distribution Center was established to distribute public documents which are printed for the Executive, Legislative and Judicial branches of the government, including departments and various government offices. General goals are to increase customer interest, sell more documents and modernize the system. The Manager of the Pueblo Center is Mr. Arnold Colo and the Assistant Manager is Mr. Edward Tapia. The Center has 112 employees.

While the major functions of the Center are to fill mail orders for Selected publications (S/L) and Consumer Product Information (CPI) publications, the Center also mails out advertising material (flyers) and some subscription items. The Center is presently processing an average of 3,500 S/L orders per day. For the first six months of this calendar year, the Center has mailed out approximately 30 million pieces of mail. This would include mailing the S/L, CPI and Specials to our customers. A total of 355,393 CPI orders has been received since the Center began handling Consumer Product Information in January of 1973. Flyers being mailed out now are - The American Soldier; Discovering Yourself in the Brain Age; Your Child, a Must List for Parents and A Selection and Guides to Fishing and Boating.

PUBLICATIONS STOCKED IN PUEBLO AND HOW THEY ARE STOCKED:

All publications appearing on the Select List are stocked in Pueblo and are retained for a six months period after the list is distributed. All publications appearing in the Consumer Product Information Indexes are in Pueblo at this time. Pueblo also periodically handles "special" jobs, mailing publications all over the world. Some of these include - Your Federal Income Tax, Tax Guide for Small Business, Occupational Outlook Handbook, National Zip Code Directory and the National Library of Medicine Current Catalog.

We try to always keep on hand the above publications and the GPO Style Manual, Government Organizational Manual, Congressional Directory, Statistical Abstract and other popular publications.

The Selected List (S/L) publications are warehoused by the number/letter designation (item number) in front of the title, e.g., 2T. The Consumer Product Information (CPI) publications are stocked in two ways - by the stock number, e.g., 2400-3000 and the item number, e.g., 241A. When ordering, if at all possible, use these one to three digit item numbers to identify publications. All S/L publications are for sale, but some items listed in the CPI Index are free.

The Center maintains an alphabetical file on all stock in the building, but does not yet have a subject file. If a customer has only the title we can tell him immediately whether it is available in Pueblo and we can have the publication picked from the warehouse by using the above-mentioned item numbers as location cues. Anyone can receive the free bi-weekly Selected Publications list and the Consumer Product Information Index by simply filling out a small 3"x5" postage-paid card. It requires approximately 2 months before the Washington D.C. office can process this and the first list is actually received.

HOW TO ORDER PUBLICATIONS:

The Center receives telephone calls from all over the United States every day from people who really aren't sure just what role we fill in supplying government documents. Some of you may have had a problem, large or small, at some time with an order that took some time in arriving or was improperly filled. We have a new Public Printer, Mr. Thomas F. McCormick, who comes to us from General Electric and a new Superintendent of Documents, Mr. Wellington H. Lewis. The Government Printing Office hopes to improve service and the Pueblo Center is doing all it can to assist in this.

If you are ordering S/L or CPI items, use the order blank enclosed in those lists whether you are remitting or using your deposit account number. If you are ordering something that may or may not be available in Pueblo, please use single-line item orders, that is, one title to an order blank. This way, you have a much better chance of receiving your books right away. As most of you know, one unavailable item on a multiple order can cause more waiting for the entire order. This also helps considerably in keeping credits to deposit accounts straight, as well as orders held for reprinting of books, etc. Pueblo will provide every book in stock and forward to Washington D.C. only those orders which cannot be filled. Of course, when the single-line item reaches Washington D.C. it will be handled more quickly. If you are west of the Mississippi, send your Select List orders to Pueblo. All Consumer Product orders should be mailed to Pueblo. You can expect to receive your S/L or CPI publications approximately 2 weeks after receipt of order.

S/L mailing address: Public Documents Distribution
Center
Pueblo, Colorado 81009

CPI mailing address: Consumer Product Information
Pueblo, Colorado 81009

Government Purchase Orders. I would like to give a pointer concerning government purchase orders. If Pueblo receives a purchase order with 12 publications listed by title only, the order will be checked for availability in Pueblo. If the clerk finds that several of the books are available in Pueblo and are indeed S/L items, the order still has to be forwarded to Washington D.C. The Washington D.C. office has asked us not to "split" an order because of the problems arising in accounting, billing and filling the balance of the order. As a result, there may be 6 publications you could have received immediately but will have to wait for Washington D.C. to process with the rest of the order. You can call or send an inquiry in to have publication titles checked for availability, and a purchase order can then be prepared to cover the publications available in Pueblo. This will give you much faster service.

Deposit Account Orders. These orders are accepted by Pueblo. The same account number is used as has been assigned by the Washington D.C. office. Again, if single line item orders are submitted (except for S/L and CPI orders) you have a better chance of having your order expedited. You can open a deposit account through the Pueblo Center or through the Sales Outlet with an initial deposit of $25.00.

Government Coupons. Pueblo has coupons in 5, 10, 25, and 50 cent denominations available for immediate supply. Please always specify which denominations are wanted.

Inquiries. As stated previously, Pueblo has an alphabetical file on all publications in the Center but does not yet have a subject file. Pueblo attempts to help as much as possible with inquiries but still relies on the Washington D.C. desk for assistance. When an order is received in the Inquiries Section, the order is checked and notations are made for all items available in Pueblo. If you send an inquiry along with your order it will help to place it on a separate sheet with your mailing address. The inquiry can then be removed and answered separately. This way your order is not delayed.

ORDER PROCESSING IN PUEBLO CENTER:

I would like to try, as briefly as possible, to explain what happens to an order after it arrives in the mail bag at the Pueblo Center.

Receipts Section. This section of the Pueblo Center is supervised by Mrs. Barbara Gomez and operates under the auspicies of the Comptroller in Washington D.C. and, of course, has to meticulously account for every penny received. Upon receipt of the mail bags in this section, the envelopes are "received in", sliced open and put in units of 50. The clerks then "sort", that is, take the orders out of the envelopes, remove the remittance, and see that checks, coupons, coins, currency and postage stamps (yes, we get those too) are separated. Orders must be separated at this point into stacks of S/L, CPI, Specials and others. The order is then certified - a machine entry is made on the order. Auditing must be accomplished. The orders are then sorted, counted again and released to Verification Section.

Verification Section. This section of the Administrative Division is supervised by Mr. Gene Ruley. In addition to all miscellaneous type orders, there are two different categories of orders received in Verification - Select List orders and Consumer Product Information orders.

Select List orders are sorted into chronological sequence, total prices of publications are verified against cash register certification appearing on the order and inventory processing is completed before the order is passed on to the Production Division. Extracted orders (stock not available and not going to be available at this Center) are forwarded to Central Office, Washington D.C. for handling, with appropriate portion of remittance stated on the order. The customer is sent an explanatory letter explaining procedure and reason for extract. Inquiries are removed and worked separately by a Reference Clerk. The customer is notified that inquiry has been removed for research and will be answered separately.

Consumer Product Information orders are sorted into three categories - singles, multiples and orders unidentified. All orders are processed simultaneously and verified as to the cost of the publication against the cash register certification. Inventory control processing is completed after orders are worked in the warehouse.

When this Center is out of stock on a certain publication, but it is on order, back-order lists are kept with customer's name, address and number of publications ordered. As soon as we receive stock, the customer is forwarded publications.

An IBM magnetic card Administrative Terminal System (ATS) has been installed in Pueblo for entering subscriptions. This unit is hooked up directly to the computer in Washington D.C. and when Pueblo receives your subscription request it is entered through our ATS. This transmission results in the customer receiving the next issue due in that particular publication. If back issues are requested, these are sent to the Central Office by mail. The machine is also used for form letters and numerous miscellaneous tasks such as quantity production labels, information cards, etc. Projected usage of this machine is for address changes, deletion of addresses and add-on's to the mail list maintained in Washington D.C.

The machine is valuable in that a perfect copy can always be obtained after submission of the original copy. The magnetic card used for recording on this machine can be retained indefinitely either with subject material recorded or recorded material can be erased by merely typing over previously recorded material.

Production Division. The Production supervisor is Mr. Michael Giarratano. Orders are placed in "Ready to Pick" bins. "Picking" is the term used for the process of going to the warehouse shelves and getting the books marked on an order. The "Picker" gets a group of orders, stamps all orders with a designated number then records the number of line items and number of orders for his and the Center's production reports. One line item can be 3 actual books, i.e., 3 copies of 2T is still only 1 line item. The picker checks off in red all items on the order blank that are immediately available and circles in green all numbers of items to be mailed at a later date (placed on back-order). The green circle is now a "flag" to the packing crew that the order is not ready to be mailed. The picker places the completed order in a tray and stacks the trays until he has approximately 30 full trays, these are then wheeled to the "checking" area. The checkers stamp each order with their designated stamp and proceed to review each and every book for every order. If a mistake is found the guilty picker is called to correct it. When the order is verified by the checker and is "clean" (meaning it has no green circles) it is then ready to be mailed to the customer. When the order has been okayed by the checker and a green circle is found, the order is "re-flagged" by the checker by putting a yellow colored slip on it explaining to the customer the meaning of the symbols we have placed on his order. All flagged orders are routed to the "due-out" section where they are pictured. "Due-out" (back-order) is the term we use when we are expecting replenishment for a publication and it will have to be mailed to the customer later. A picture is made of the address portion of the order and filed in a section set aside for the particular number. A picture of the order is made for each green circled item on the order. The pictures are used as mailing labels when the "due-out" stock arrives. These orders are ready to be mailed to the customers. All orders are placed at a packing table, put in envelopes or boxes and sealed. The packer sorts all his packages by state into mail bags supplied by the post office. The bags are placed on the mail truck at the end of each day. Mr. Henry Padilla, supervisor of Traffic Division, is responsible for shipping and mailing.

Programming Division. This division is under the supervision of Mr. Robert Sykes. Mr. Sykes is responsible for ordering replenishment stock when minimum levels are reached for Select List and Consumer Product Information. Teletype and/or telephones are used to accomplish this. This division is also responsible for seeing that the Selected List, Consumer Product Information Index circulars, and addressing runs for same are received in time to meet schedules in the Production Division. These circulars are addressed by machine and mailed to 1.3 million subscribers of the Selected List. Mr. Sykes also oversees the Sales Outlet operation.

SALES OUTLET AND TOURS:

Up to the present time the Sales Outlet has been able to take care of a variety of problems. I handle the Sales Outlet and Mrs. Pat Herring is my assistant. We frequently assist the Center personnel in answering questions or identifying requests. We seem to do a little bit of everything. We correlate our procedures with those of the Center's to expedite orders and have a smooth-running operation. We have both worked overtime now and then in all parts of the Center and are quite familiar with the over-all procedures. We usually know where just about every publication in the building can be found. We will be glad to assist you in any way we can. We are able to give some specialized services simply because our "walk-in" retail outlet is six miles from town and most of our business at this time is done over the telephone or through the mail.

The Sales Outlet is not restricted to the above-mentioned stock items. We have the flexibility to order anything available through the Superintendent of Documents. There are always many titles available that are not in the Center's S/L or CPI stock. Also available are 47 free price lists and many sets of pictures and posters. The Sales Outlet stocks as regularly as possible many of the pictures which appear in Price List 81, Posters and Charts.

The Center and Sales Outlet welcome tours but we ask that you please call in advance.

The mailing address and telephone number for Sales Outlet is:

Sales Outlet
Public Documents Distribution Center
P.O. Box 713
Pueblo, Colorado 81002

FTS - 303-544-2304
Commercial - 303-544-5277, Ext. 304.

GOVERNMENT PRINTING OFFICE
BOOKSTORE OPERATIONS

Nikki (Rush) Tinsley
Manager
Denver GPO Bookstore

Abstract

A review of the overall operation of the Government Printing Office and the services it offers librarians in particular and the public in general.

Outlines major improvements being made at the Government Printing Office, plans for increased efficiency, and problems faced in government printing.

Special emphasis is placed on the Bookstore Operation including its history, services, and plans for future expansion.

It is my pleasure to be with you today as manager of the Government-- bookstore here in Denver. The Government bookstore is probably the most visible outlet of one of the largest printing and documents distribution centers in the world, the Government Printing Office. Our Government bookstores are only one of many important services provided by the Government Printing Office. I will briefly describe some of our other services and then return to the area with which I am most familiar, the bookstore program.

I am certain I speak for everyone at the Government Printing Office when I say we are pleased to be represented here and are in complete agreement with the theme of this workshop, since it is our policy to "work together" with everyone concerned with the printing and information fields as part of our effort to supply the public with the best service possible.

Early in the history of this country, it became apparent that printed material played an integral part in the running of the Government, the protection of democracy, and the advancement of the public's freedom and education. To these ends the U.S. Congress established the Government Printing Office in 1861. Today over 100 years later, and in spite of the doomsday predictions for the printed word heralded by prophets of the electronic age, the Government Printing Office and its services are more vital than ever.

Over the last several years, GPO bookstores have opened in 16 cities and more stores are planned throughout the country. Our central office, in Washington, D. C., at times receives requests at rates up to 60,000 per day. This tremendous demand for our services points up the increasing importance of the printed word along with other forms of communication in our information oriented society.

The Government Printing Office was established under Title 44, U.S. Code "Public Printing and Documents." This Act created a permanent Congressional Joint Committee on Printing which is, in effect, the GPO's Board of Directors, and established the positions of Public Printer of the U.S. who is the head of the Office and a Superintendent of Documents, responsible for sales and distribution.

The Superintendent of Documents, who is now an Assistant Public Printer but retains the title Superintendent of Documents, heads the Public Documents Department of which the bookstores are one part. The Public Documents Department is of interest to librarians since its functions include; distribution of publications for the Congress and Federal departments and agencies; preparation of catalogs and indexes of all Government publications; servicing the Federal Depository Libraries; and, perhaps foremost, the sale of public documents to the public.

The distribution function of Public Documents includes the printing and mailing of the Congressional Record and the Federal Register. In 1972 the Department distributed over 95 million pamphlets and bulletins for government agencies. For fiscal year 1973 the total mailings are estimated around 100 million.

The Depository Library program designates certain libraries as depositories for government publications. There are two major classifications of Federal Depository Libraries. Thirty-nine of the libraries are known as "Regional Libraries." These libraries receive one copy each of every unclassified government publication produced in or under contract to the Government Printing Office. The others are known as "Selective Libraries" and receive one copy of all publications on a preselected basis by subject or class. Qualifications for depository status include that a library maintain at least 10,000 publications on its shelves, must be staffed by a specified number of professional librarians, and after designation, must certify that it will retain the publications received. Today there are over 1,100 depository libraries in the U.S. At these designated libraries citizens can make free use of government publications on almost every subject.

Last year 72,000 new titles were produced by government agencies. It was the responsibility of the Public Documents Department to catalog and index these publications. The principle vehicle for this is the "Monthly Catalog of U.S. Government Publications."

This catalog normally contains between 1,200 and 2,200 titles embracing publications received in our library for the four week period prior to the issuance date. At present we are automating our method of preparing the "Monthly Catalog." Besides time and cost savings the new system will allow us to include three indicies in each "Monthly Catalog" rather than the single merged catalog which we previously produced monthly. This is part of our continuing effort to work with the library community to make both our jobs easier. Besides the "Monthly Catalog," we also prepare 47 price lists arranged by subject matter; education, labor, ecology, and political science, for example. These are available free of charge and are generally of interest to the casual buyer of government publications.

The sale of government publications to the public is one of the most important functions in the Public Documents Department. We make available to the average citizen over 24,000 publications on every imaginable subject from aerospace to zoology and infant care to aging. All these government publications are the result of research and study performed by Federal departments and agencies.

The demand for government publications is constantly increasing; last year we sold 78 million publications, estimates for 73' are in the 90 million range. The prices for government publications are intended to cover printing, order-processing and distribution costs and are quite reasonable.

The main sales information tool of Public Documents is the booklet, "Selected U.S. Government Publications." This biweekly catalog of new and relevant titles, sent to over 1.3 million people, is responsible for a large portion of Public Documents sales. I would like to point out that being on this mailing list is the best way to receive information on new titles as well as the quickest way to order and receive publications. Each edition of "Selected U.S. Government Publications" contains an order form which is processed at one of our Public Documents Distribution Centers. This procedure assures the most efficient processing of your order. Also, for best service, when you have occasion to send an order to our Central Office in D.C., we ask that you enclose remittance in check or money order, provide full information, and, for quickest response, order only one title on a separate sheet.

For your information, plans are under way for a total catalog of U.S. Government publications. Preparation of such a catalog, hopefully, will be possible for the first time with a computerized system used for preparation and updating. Also, a program has just been initiated in conjunction with the National Archives and Records Service to fully automate our handling of incoming mail, order taking, order processing, and other functions vital to providing service to you.

Our bookstore operation, which I personally am a part of, is within the sales function of the Public Documents Department. The Government bookstore is a relatively new program in the GPO. For a number of years we've had a bookstore in the GPO headquarters and in the surrounding metropolitan area but none in other parts of the country. In 1967 we recognized that mail orders to the Central Office were exceeding what could efficiently and promptly be handled and that new outlets were needed. We received approval from Congress to conduct a bookstore experiment to open new avenues for serving our customers. The test site for our first bookstore outside the D. C. area was Chicago, Illinois.

Since then bookstores have opened in 16 cities throughout the country including San Francisco, California, Boston, Massachusetts, Atlanta, Georgia, Dallas, Texas, and New York, New York. Last year over $2,100,000 worth of publications were sold and over 540,000 customers served.

The bookstores serve primarily a retail function, offering direct sales. A GPO bookstore averages over 1,500 titles on display and available over-the-counter plus each offers access by mail-order to the 22,000 other titles distributed by GPO.

Factors considered in deciding where to locate bookstores include a city's population, geographic dispersion of bookstores throughout the country, location within the urban area, and economic profile of the area. A partial list of cities being considered for future bookstores would include St. Louis, Missouri, Buffalo, New York, Pittsburgh, Pennsylvania, New Orleans, Louisiana, and San Diego, California. Current plans call for the establishment of four to six stores per fiscal year.

Residents of Colorado are particularly fortunate since we have two sales outlets for government publications in our state. Besides the Government bookstore here in Denver, located in the Federal Building, U.S. Courthouse, 1961 Stout Street, we also have a small sales outlet for government publications at the Public Documents Distribution Center located in Pueblo.

On the subject of Distribution Center, there are two Public Documents Distribution Centers in the U.S., Pueblo and the other located in Philadelphia, Pennsylvania. These centers were recently established to take some of the workload off our Central Offices. The centers receive and fill only those orders from our biweekly "Selected U.S. Government Publications" which I mentioned earlier. Stock on items announced in this booklet is sent to each Distribution Center where listed publications are available for a period of 6 months after "Selected U.S. Government Publications" is mailed. Orders from customers east of the Mississippi are processed in Philadelphia, from those west of the Mississippi, in Pueblo. But it must be noted that these centers only handle selected List items and only maintain stock for 6 months. All other orders and requests for information should be directed to Washington, D. C.

With these new Distribution Centers, the opening of additional bookstores, and use of more computerized operations in catalog, index, and other processing functions we look forward to providing better, faster, services to everyone interested in purchasing government publications.

Again let me say the Government Printing Office is honored to be represented here and hopes to continue working closely with you in the future.

TRANSLATIONS IN THE UNIVERSITY LIBRARY ENVIRONMENT

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This talk might better be called "What Every University Librarian Ought To Know About Translations."

Translations present a rather complicated resource picture in any kind of library whether it be special, public, governmental, or academic. I'm sure that each of these types of libraries has its own peculiar set of translation problems and situations. In the special library, for example, one might find the librarian wondering if he should start a special translations collection beginning with the 250 dollar translation he has just received or if he should merely assign an accession number to it and place it in the technical reports collection.

Now the university librarian's problems with respect to translations may not be the same as those of the special librarian but they are nonetheless present and begging for solution. For instance, it is a shame when the university library has no policy on the acquisition, organization, and use of translations. In this situation the university's reference librarians are in a quandary, not knowing if certain types of translations are being acquired, not being certain in just what collections the translations might be found, and not really being informed about translations as a valuable resource. When this obtains it is time for the university librarian to review with his staff the true dimensions of the situation and to begin to elaborate a workable policy.

Because the range of translations is so great, covering as it does books, periodical articles, whole journals, patents, and other documents, and because the character of the listings, indexes, and catalogs to them is quite varied, the entire problem of physical and content accessibility to translations is a complex and complicated affair. Himmelsbach and Brociner in the latest edition of their guide to translated journals[1] state that a veritable "translation jungle" exists so far as journals are concerned. While their opinion derives solely from efforts to list cover-to-cover translated journals, think how readily one might extend this appellation to cover all other types of translations that exist as well.

Let us take a brief look at book translations.

Good bibliographic controls for translated books have been developed and the university librarian should be familiar with them. According to the *Index Translationum*, the Unesco watchdog over who translates what each year, in 1970 there were translated 41,322 books in 73 countries. The index arranges these by country and then into broad subject categories, and provides a helpful author index. Most of the works listed are available in the book trade of one country or another and not really difficult to obtain. The main trouble with the index is its two year time lag.

In order to identify what has been translated recently or what is in process of being translated other sources must be used. The following are helpful: for current translations try the *Government Reports Announcements* and the *Translations Register-Index* of the National Technical Information Services (NTIS) and the National Translations Center (NTC) respectively; for translations in process there is the annual brochure of the Special Foreign Currency Science Information Program, coordinated and administered by the National Science Foundation, and entitled *List of Translations in Process*[2] There are also many foreign listings and indexes issued by different European countries. The *NLL Announcement Bulletin* of the National Lending Library at Boston Spa, England, deserves special mention while others, such as *Transatom Bulletin*, are of marginal use.

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[1] Carl J. Himmelsbach and Grace E. Brociner. *A Guide to Scientific and Technical Journals in Translation.* 2d ed. New York, Special Libraries Association, 1972.

[2] National Science Foundation. *List of Translations in Process 1972*, Washington, D.C., 1972 (SFCSI 72-01)

A collection building problem comes to mind at this point. One naturally expects all translated books to be fully represented in the card catalog. But this is not necessarily the case because some university libraries fail to identify and separately process those translated books appearing in government document series. This oversight or deliberate avoidance is to be deplored, for some of the major book translation programs that have been conducted for some years in such countries as Israel, Indian, Pakistan, Jugoslavia, Pland, and Tunisia provide us with many of our best translated books. A policy decision must be made by the university librarian as to how to deal with this sort of translated material. Leaving these books intact in their technical report series often does an injustice to the reader, for he expects these books to be recorded in the card catalog and no place else. To expect the reader to know that some books, i.e. those translated under the Special Foreign Currency Science Information Program and appearing in various document series, are listed only in certain specialized indexes, is demanding too much. The average reader would never think of looking in these remote places. He knows that what he is looking for is a book and that the catalog is the logical place to find it.

This, then, is a problem for the university librarian: to see that those books translated under the auspices of government agencies and published as government documents are given full cataloging treatment as normal books. After all, the Library of Congress catalogs them separately as normal monographs. So why can't the university library?

Be that as it may, the university librarian whose public catalog fails to reveal that the translation of a book is in his library, does have at his disposal those very helpful listings and indexes to translated books mentioned above. Once identified these translations are usually not difficult to acquire.

Now let's turn to journals and journal articles.

The Himmelsbach and Brochiner guide referred to at the outset lists some 278 cover-to-cover translations of journals in the fields of science and technology. For the fields covered this is probably the most complete listing we have, although the European Translation Centre at Delft, Holland, annually issues a similar listing and it has the merit of also covering the social sciences.[3] So the university librarian should really have no difficulty now identifying the numerous Russian, Japanese, Chinese, and other foreign language journals which are being so fully treated.

Naturally, many bibliographic problems are inherent in the production of these translated journals and the university librarian should be aware of them. They are mainly ones of accurate titling, consistent numbering, and establishing the correct bibliographic relationship between the original journal and the translated one.

These translated journals are expensive: subscriptions to them often run to eight or nine times the cost of the original. Yet, if they fit into the programs of the university and are needed, they should be acquired. Selectivity here is the issue and the university librarian should work closely with faculty and other university library users in determining which translated journals should be acquired.

While we seem to have sound well-established bibliographic tools for books and cover-to-cover translated journals, the problem of identifying and finding the separately translated article, patent, or other document is not so satisfactorily accomplished. To be sure a number of well-conceived and useful tools exist. In the United States, for example, we have the Translations Register-Index of NTC, the Government Reports Announcements of NTIS and Transdex of the Joint Publications Research Service, all providing access to translated newspaper and journal articles, patents, and the like. On top of this, there are the numerous indexes made available by the different national translations centers as well as by the European Translations Centre (ETC), which seems to be emerging as the center of an international cooperative program to control translations throughout the world.

But these centers have their limitations. Some are financial and of a support nature; others concern their ability to really identify everything in this category that is being translated; others relate to their ability to exact cooperation from users. For example, we know something of the financial plight of the National Translations Center at the John Crerar Library. This has affected its membership in the European Translations Centre, which no longer lists the NTC in its index as a contributing member. This is bound to affect the identification of existing translations and consequently the coverage of Translations Register-Index and possibly the services of ETC.

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[3] Translations Journals. List of Periodicals Translated Cover-to-Cover, Abstracted Publications, and Publications Containing Selected Articles. Delft, The Netherlands, European Translations Centre, 1972.

But one of the big problems of the national centers, noted for urging their users, including librarians, to submit notices and copies of existing translations to them, is that they are not really identifying all the translations that are being made. It stems in part, I suppose, from the fact that we have a voluntary system of notification, which is not likely to change. But I can see the possibility of improvement with a more vigorous public relations program than we have had in the past on the part of the national translations centers.

We know that the translations are out there. Almost every industrial firm with a respectable R & D program gets involved in ordering translations of fugitive periodical articles and patents. The problem is that in the interest of industrial secrecy, which is understandable in the light of the competitive spirit, they don't tell outsiders about them. These translations are often considered to be strictly in-house proprietary materials. I suppose the policy of the national centers in guaranteeing donor anonymity has been effective to a considerable degree in opening up these private caches of translations.

One solution to unearthing these translations is, as I have said, a more vigorous public relations program on the part of NTC. The directors of laboratories in industry, government, and even academia should be constantly reminded of the role of the National Translations Center and of the all too obvious benefits to be derived from a disclosure of their in-house collections of translations.

The university librarian, too, may play an important role in this situation. It is often said that the university librarian is a mere broker in the negotiation of a translation for a library user, and further that his responsibility ends there: he need not concern himself further with the problem. I do not agree with this carefree attitude.

It is true that the university librarian is not in the same position as the special librarian who has just received a 250 dollar translation from a free lance translator or from a translation agency. The special librarian of course wonders how he is going to integrate the translation into his collections. But he also thinks, or should think, about notifying NTC of the fact that he has a translation and will be glad to supply a copy. Now why can't the university librarian exercise more than a broker function in a similar situation? He is aware that a translation is being negotiated, and although he is probably not interested in adding the translation to the university's collection, he could impart to the user, whether he be faculty, researcher, or student, that the library would be interested in a copy for forwarding to the NTC. I believe that it is possible for the university librarian to participate in the identification of translations and their notification and submission to NTC.

In conclusion, we see that the university librarian's role in dealing with translations is varied. He must know his resources in order to gain access to the numerous books, journals, periodical articles, patents, etc., that have been translated or are in the process of translation. He must know where to put this material once he has acquired it so that it will not be so dispersed throughout the collections as to be effectively lost. He must also understand and define his role and responsibility in existing national voluntary programs of translation notification and submission. In these ways the university librarian can be a more effective mediator between the university's collections and the users of those collections as well as an active participant in the program of the National Translations Center.

THE CALIFORNIA FOREST RESEARCH INFORMATION NETWORK

(CALFORNET)

Cooperative Information Services to a Specialized User Population

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ABSTRACT

The California Forest Research Information Network (CALFORNET) repackages information from national and local resources, alerts its users to new literature, delivers documents to widely dispersed users in the public and private sectors, and brings users into contact with specialists and others who can help them. Resource bases are in both federal and state library collections and service access points include federal, state, county, and city libraries.

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CALFORNET is a specialized, experimental information network requiring the cooperation of two branches of the Forest Service, the University of California in Berkeley, the California State Library, and several county and municipal library systems. It serves a professional clientele working in both the public and the private sectors. Most of its users are foresters and other wildland specialists and managers in public agencies or in the timber growing and forest products industries. The network also serves Forest Service research scientists in California and Hawaii and the faculty and graduate students of the School of Forestry and Conservation of the University of California, Berkeley. With the exception of these last two user groups, the majority of CALFORNET users are in rural areas and small towns in northern and central California. They lack direct access to technical or research libraries, and there are few librarians in these small communities equipped to handle specialized information problems.

The problem of providing information services to professionals working away from research centers has almost always been unsatisfactorily met. It has become much more serious in the last ten years because of rapid expansion in the complexity and quantity of information that foresters and others require in order to make effective land-management decisions. In California, these problems, while not unique, are especially acute. There are 17 National Forests, representing 15 major plant communities (1), ranging from foothill woodlands to subalpine forest. Each forest has its own set of management and use problems; in addition, several are under intense urban pressures. Private sector operations are found on both federal and other lands. Altogether the number of specialists in California needing forestry and forestry-related literature services amounts to several thousand.

We did not begin work on this problem with a solution like CALFORNET in mind. The event that began the development was a Forest Service program review in 1968 which determined that the results of Forest Service research were not being transferred effectively to practice on California's National Forests. (A similar report citing this problem was published in 1972 by the General Accounting Office. (2)) We had been aware of this for some time in California. For several years, a Region-Station Communications Committee has existed to provide a forum for discussion of mutual problems between Region 5 of the Forest Service, headquartered in San Francisco, and the Research Station in Berkeley.

Co-chairmen of the Committee were Richard Hubbard, leader of the Station's Range-Wildlife Environmental Research Project, and Al Groncki, General Forestry Assistance Officer for the Region's Division of State and Private Forestry. I proposed to them that one move which might expedite the transfer of technical information to practice on the forests was to provide foresters with easy-access channels to their literature sources. (3) Why not try giving at least one forest the same kind of technical library services that we have provided for years to our researchers at the Experiment Station? After several preliminary studies, approval was given to try such service on the Klamath National Forest in northwestern California. The Forest was selected for its heavy workload and the presence of various specialists and inter-disciplinary study teams on its staff. Service was scheduled to begin in January 1971 and last for one year.

In advance of this date, I visited the Supervisor's Office and every Ranger District on the Forest, to explain the purpose and details of the service. Groncki, Hubbard and I considered this step necessary for several reasons. I knew that in theory the information needs of forest rangers and forest supervisor staffs would differ from those of our researchers; I wanted to give myself a good orientation to their information problems. We also knew from other experiences that there is much skepticism in the field about the usefulness of new, experimental services proposed and furnished by remote headquarters. We wanted to obviate the "field library" image. Instead, we stressed that we were going to do three things for the Klamath foresters: (1) we would alert them each month to new publications cogent to their needs and deliver to them the documents which they wanted to see from that list; (2) we would obtain anything else they knew or learned about from other sources and Xerox or loan it to them; and (3) we would discuss their more complex information problems over the telephone and get materials from various sources for them or put them in touch with appropriate specialists.

We began by providing the Klamath people with our MONTHLY LIST, by means of which we have kept our own researchers alerted for years. The LIST contains some 125 new items each month, with a fairly detailed subject index. These items are selected from a variety of sources and repackaged as pertinent to California forest management problems. Users obtain desired items by marking the items' numbers in a space on the cover, tearing it off and sending it back to Berkeley. Rangers and staff were also left packets of document request cards. These are used to request documents about which the user has learned from any source, e.g. conversations, journal reading, etc. And we began taking information S.O.S. calls from the Klamath Supervisor's Office and Ranger Districts.

Two more orientation visits, with Mr. Groncki along, were necessary before the Klamath people really understood and believed what we were offering. However, these trips during the first year's experiment paid off in a brisk and continuing business with the Forest. In fact, word began to spread, and other California National Forests began to ask for the service. I felt I could add a total of four Forests before my present staff would be too overburdened. In 1972, three more Forests were selected, based on an analysis of their location, workloads, and information needs. Each new Forest was visited in advance of service. These and other travel and development costs were covered by a $10,000 grant from our Washington Office.

The suggestion was now made which lifted our activity from one involved with an in-service expansion to one clearly requiring network operation. Mr. Groncki, by now a thoroughly information-services-oriented General Assistance Officer, pointed out that there was just as big an information need in the private sector as in the federal service, and that the Forest Service, under several General Assistance Acts, as well as the Agricultural Act of 1862, has a national responsibility to disseminate forestry information to all citizens. He suggested we include in our service expansion such private sector users as consulting and industrial foresters, forest products specialists, and foresters in state and other public agencies.

The extent of the information needs of this clientele was even less known to us than that of the National Forest people. We engaged the various California chapters of the Society of American Foresters to provide names and addresses of members in the private sector who could profit from a service such as CALFORNET. We also reviewed State documents listing consulting and industrial foresters. Potential users were contacted as soon as effective descriptive materials could be prepared for mailing. These activities began in Fall 1972, at about which time the term CALFORNET was devised.

My administrative concern now was not to engulf my staff in service requests and not to overstrain our resource base, which, besides our own holdings, meant not abusing our use of the University of California libraries. Most of the proposed private sector users were natural clients of California's municipal and county libraries. Despite today's fashion of cutting library funding, there remain in California several inter-county cooperative library systems. Many of the documents to which we would alert our new users are duplicated in county system reference centers and in the State Library's extensive holdings of government documents and periodicals. Furthermore, the county units are located for loaning and recalling documents circulated in rural areas and small towns.

In November/December 1972 I visited the headquarters of the Mountain-Valley Library System in Sacramento; the North Bay Cooperative Library System in Santa Rosa; and the North State Cooperative Library System in Redding. These three systems are resource and reference headquarters for some 35 county and small town libraries in northern California. I explained CALFORNET services, stressing that we would alert forestry people in their area with our newly formatted MONTHLY ALERT, and supply, through loan or Xerox, documents which the county systems did not have or which they could not get through the State library. Users would bring in or mail their MONTHLY ALERT covers to their designated access library, whose location would be indicated to them in the materials we planned to send out. In return the county library would handle the circulation. The three county library systems consulted their member libraries and reported back general interest and approval. The county system headquarters also agreed to distribute our MONTHLY ALERTs to their own member libraries. In doing all this they were performing a considerable service to us; at the same time, they were making a new service available to their own users.

Because it would eventually be involved in CALFORNET as a backup resource for the county library systems, I sought the cooperation of the State Library. Contact was made through the library's "Services to Business" unit, and at a meeting of the library staff I explained what we were trying to do. Once service load and a few procedural matters were clarified, Mrs. Marion Bourke, of the Services to Business unit, and Mrs. Ethel Crockett, the new State Librarian, announced "enthusiastic approval" for the State Library's cooperation with CALFORNET.

One indispensable cooperative understanding had to be obtained. The key to our ability to furnish service to our own people has always been the library system of the University of California, Berkeley. Our relations are secured in a Memorandum of Understanding between the Regents, as land-grant university officials, and the Department of Agriculture. But we were now proposing possibly to double our use of the University collections. It was necessary to get the University Librarian's approval of this new direction, and I felt we should have to offer some quid pro quo in the package.

We have always maintained especially close relations with the library of the School of Forestry and Conservation, giving special services to their staff and the School's faculty and students. Mr. Vincent Aitro, who runs our central library operation and, therefore, much of CALFORNET's services, worked out an arrangement with the School's library, whereby a cooperative acquisitions policy would be established. We would produce a centralized acquisitions list, in the form of CALFORNET's MONTHLY ALERT. Contents each month were gleaned from the School's acquisitions, those of the University's Forest Products Laboratory library in Richmond, California, and our own PSW Science Literature Services. In practice, this means that the forestry units of the University rely on the CALFORNET alerting medium. We supply copies to the faculty and graduate students of the School and to the staff of the Forest Products Laboratory, Richmond. With this in hand, I went, in November, with Mrs. Lois Farrell, who heads the Berkeley campus agricultural libraries, to discuss CALFORNET with Mr. James Dougherty, University Librarian. Mr. Dougherty happens to be a forestry school graduate, but this did not by any means determine his approval. He approved on the basis that networking and inter-library cooperation are the only ways to go.

The groundwork for CALFORNET was now laid. In January 1973, orientation meetings for potential private sector users were scheduled in northern California. Persons whose names were supplied to us by the Society of American Foresters chapters were sent invitations to attend. Mr. Groncki and I then travelled about, explaining the services as we had earlier to our own forest rangers. These meetings were also attended by professionals from state, county, and municipal land management agencies. It was clear from audience response that we were proposing to fill a genuine service vacuum. Services to the private sector began in March 1973.

By now, we also felt we had enough data from our experimental service to the four trial Forests to make a realistic projection of staff and budget requirements necessary for expanding the service to California's remaining National Forests. At present, we could not justify any new professional staff. One and a half clericals appeared adequate to cope with the anticipated increase in Station library circulation and paging activities on campus. The Regional Forester and staff accepted our estimates and provided $20,000 to finance an extension of the service for one experimental year to all the Forests. The Washington Office advanced us $5,000 to cover other contingency costs. These funds are in addition to the regular PSW Science Literature Service's budget which pays the existing professional and other salaries and the basic operating costs. Plans now call for a review next spring of our actual operating experiences, at which time the Region and the Station will determine an equitable sharing of the costs.

We have been operating full CALFORNET services to the private and public sector for too short a time to report on responses and effects. But we do know that CALFORNET has been alerting specialists, some quite isolated, to information very cogent to their work, and delivering the documents to them. During this first year of full operation, we expect to page 5,110 items from the University library system. Half of these will be for people on the National Forests. In the same period, we anticipate 7,075 transactions from the MONTHLY ALERT with our National Forest users. It is less easy to measure the private sector load, since an unknown part of it is siphoned off by the participating county libraries.

One measure of private sector interest which we do have is continuing letters and telephone calls from industrial foresters and foresters in other public agencies, requesting that they receive the MONTHLY ALERT. There have been several almost unbelievable letters in which the user expresses a willingness to pay a fee for the service. The county librarians with whom I have spoken since we began to work with them all express appreciation of the fact that they can offer a specialized, technical information service to a segment of their public which they could do very little to help before.

A specialized network like CALFORNET is possible on the basis of so little cost and largely informal cooperation because its audience is defined, targeted, and relatively small. CALFORNET alerts its users to pertinent literature by repackaging it from much larger acquisitions bases. But, where necessary, the network can track down and obtain obscure and ephemeral materials because of its access to immense literature resources. Communications are two-way, and interactive transactions are sought out. All these features make it possible to bring very intense support to a user when he really needs it.

To be evaluated, CALFORNET has to be regarded within the contexts of its larger setting. It is a specialized sub-system within the framework of national and local interlibrary cooperation. (4) It serves a specialized sub-set of information users by interfacing for them with national resources, information services, and data bases. In a sense, the CALFORNET unit at the Experiment Station in Berkeley operates for its users as information brokers at the national level. There is no doubt need for and room for numerous such networks in various parts of the country, each structured about the configuration of resource libraries necessary to give it resource depth and operational flexibility.

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Part III - Technical Processes

The Nation's Patenting System; The Support It Receives from the Resources and Services Obtainable in the U.S. Patent Office's Scientific Library

by Patricia W. Berger, Head, General Reference Branch, Patent Office Scientific Library.
(Presented by Peter Sofchak)

Abstract: In order to understand how the Patent Office's Scientific Library works and what it tries to accomplish, it is necessary first to consider the purposes of the patent system in this country, the kinds of things which can be patented and how patents and trademarks are developed here in the United States. This paper attempts to present an overview of the U.S. patents system and its requirements for information.

This paper will attempt to describe the mission and functions of the U.S. Patent Office's Scientific Library. In order to understand how this Library works and what it tries to accomplish, it is necessary first to consider the purposes of the patent system in this country, the kinds of things which can be patented and how patents and trademarks are developed here in the United States.

In a recent presentation to a group of library science students, Mr. Leslie C. Hamilton, Assistant Register of Copyrights, said that the Copyright Office of the Library of Congress deals in protective certification of "intellectual products."[1] That is precisely what the Patent Office does not do - you cannot patent ideas and conceptualizations in this country. United States patents are intended to protect the inventor or discoverer of new technology. 35USC101 states that patents may be granted only to those who invent or discover "Any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof..."

You can patent a rosebush, a new computer, a unique mouth wash, a souped-up CRT circuit for networking, or a design for a new sling-shot, provided: (35USC102 and 103)

- the invention is novel;
- the invention has never been patented anywhere earlier;

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[1] Oral presentation, 6 July 1973, to the Institute on Federal Library Resources, Services, Programs, Networks, and Data Banks. The Institute was organized and conducted by the Chairman and faculty of the Library Science Department, The Catholic University of America, Washington, D.C.

- the invention has never been described earlier in print "in this or a foreign country";
- the invention constitutes a substantial modification of previous subject matter to one skilled in the specific area of technology.

Now that we understand what kinds of things are patentable in this country, I think it is obvious that the United States patent system is an important and necessary ingredient for our continued technological progress.

A former Commissioner of Patents underscored the system's importance when he said, "To undermine or impair the patent system is to dilute or destroy the incentives the patent system provides. And these incentives are very important. In his message to the Congress on science and technology, President Nixon stated 'we know... that a strong and reliable patent system is important to technological progress and industrial strength. The process of applying technology to achieve our national goals calls for a tremendous investment of money, energy and talent by our private enterprise system. If we expect industry to support this investment, we must make the most effective possible use of the incentives which are provided by our patent system.'" The Commissioner continued - "What are these national goals? To improve productivity. To meet our energy problems, our environmental problems, our balance of trade problems. To improve health, transportation and housing. In today's world, we must recognize that the successful handling of all of these problems depends, in large part, on technological progress - the very thing our patent system was established to promote! ... It seems to me, therefore, that all of us ... should be conscious of the importance of the 'confidence factor' in making our patent system as effective as possible."2/

Precisely how does the U.S. Patent Office implement the patent system? By providing (from 1790 to the present

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2/ Remarks of The Honorable Robert Gottschalk to the Patent Resources Group Annual Spring Institute, Nassau in the Bahamas, 29 March 1973, pp. 10 and 11. At the time of the Institute, Mr. Gottschalk was U.S. Commissioner of Patents.

time) the technological and legal expertise and the appropriate supporting services necessary to assure that the patentability requirements of the United States Code are fully met, and the rights of the inventor, as well as the rights of the government are fully protected. Let me re-emphasize that, unlike other countries, the United States patent law requires that each application for a patent be examined against the world's literature to determine whether or not the identical invention has ever been patented, or the idea for it published anywhere at any earlier time. Only after this stringent examination is completed and no prior "Art" (as the facets of technology are called) discovered, can an applicant be granted a Letter of Patent.

Such an examination is an enormous undertaking. The U.S. research community has spent millions trying to control and efficiently retrieve the scientific and technical literature and information generated just since World War II; yet patent examiners are routinely asked to apply to the 102,000 new applications received annually an intense search of all existent technical literature - whereever and whenever published.

To cope with this incredible task, the Patent Office employs 1,200 examiners - men and women with considerable training in the physical sciences or engineering, and sometimes legal training as well. As I have tried to indicate, their mission is unique, to say the least, and very difficult. It has been publicly stated that "Many examiners in the Office have never had occasion to appreciate - and possibly have never been exposed to the thought - that while their fundamental training as undergraduates was in technology, they are not now technologists nor functioning as such, but they are performing a quasi-judicial function. Their basic and constant concern with technological subject matter is obviously very great. But it differs very considerably in kind, for example, from that of their former college classmates who became actively involved in research design or manufacturing.

The patent examiner does not create - he does not deal in - he does not improve - ... he does not commercialize - technology. Rather, he determines somebody's legal rights with respect to technological subject matter ... His work product is a document defining legal rights with respect to technological subject matter; and it is interpreted and applied, by lawyers and courts, in the light of legal criteria and doctrine as applied to the technological facts."[3]

These 1,200 examiners, then, are the people whose output will ultimately determine the public's plus or minus "confidence factor" in the U.S. patent system. They function under terrific time constraints, as the Office attempts to decrease case pendency time from 24 to 18 months (it was 36 months in FY 67), while simultaneously increasing its annual total of cases disposed (it was 115,000 in FY 72).

Primarily, then, it is around examiner needs and requirements that all Patent Office information systems, including the Scientific Library's systems, are designed.

The Patent Office's Manual of Classification organizes subjects of invention into over 300 major classes and 85,000 subclasses. This classification manual is used to codify, organize, assign and route incoming applications to the specific, appropriate groups of examiners. The Manual is also used to organize the examiner's own search file. Class arrangement in the Manual was once alphabetic - today, it is best described as "random" and subclass arrangement within the classes is hierarchical. But these circumstances are accommodated by inclusion of two concordances, one alphabetic (by class name and examiner unit) and the other numeric (by class number and examiner unit) plus an index to the classification schedule. In the Library, we use the classification manual for yet another purpose. Ms. Joan Mavity, Chief of the Technical Processes Branch, has designed a concordance linking Library of Congress classification numbers with the appropriate Patent Office class and subclass numbers. A cataloger assigns Library of Congress classification numbers to newly received "On-Approval" volumes, enabling Ms. Mavity (via her concordance, plus the ones in the Manual) to go directly to the examining units most apt to be interested in the specific technologies covered. The program is new, but it appears it will be successful, and will therefore become a key element in the Library's book selection program.

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[3] Ibid., pp. 29 and 30.

[4] U.S. Patent Office, Manual of Classification, Washington, U.S. Govt. Print. Off., loose-leaf.

As I mentioned earlier, the Manual of Classification is also used to organize the examiners search files within their examining units. (These files are called "Shoes", because many years ago, the examiners kept their journal clippings, patents, etc., stashed away in shoe boxes. The boxes have long since given way to banks of files, but the "shoe" name has stuck!). Theoretically, a paper copy of each U.S. patent is classified (in more than one subclass, if that's appropriate) and filed away in the examining unit's "shoe." This classification and filing process is also applied to paper copies of foreign patents as well as certain pre-selected materials in the non-patent literature. I said "theoretically" the shoe contains all of these goodies; in point of fact, as every working librarian knows, file integrity of working paper copies is most difficult to maintain. At the Patent Office, it is almost impossible - public searchers, individual inventors and patent attorneys, as well as the Office examiners, all work out of the same "shoes."

An equally important application of the Patent Office classification schedule is the classified paper copy set of all U.S. patents issued since 1836. (I am not using the word "classified" in a security sense, rather, I am using it in a library sense - to indicate a structured arrangement of masses of material and data.) In terms of numbers of patents issued, the file totals close to 4 million, but with cross references, the total number of patents in the classified file numbers about 10 million. This file, together with a numeric file of all U.S. patents issued, is available to the public for searching in the Office's public search room. I think it's accurate to say that the classified U.S. patents file is probably the single best source of state of the art information on U.S. technology. Where else in this country could you obtain such a mass of carefully detailed and meticulously documented material covering every conceivable facet of technological innovation?

The full dimension of our national technological creativity is documented, carefully classified and included somewhere in this file. I rather doubt that a comparable public national technological resource or asset exists elsewhere.

Equally important, by searching these records, an applicant can discover whether his invention has been anticipated by a U.S. patent *before* he goes to the expense and trouble of hiring a patent attorney to file an application for something already "up and running". Finally, I must add a personal observation about this file. I wonder whether this classified U.S. patents file is being used in our national search for solutions to our technological transfer problems. It seems to me that the arrangement and unusual grouping of the materials might very well suggest answers to some of our difficulties in this area.

So much for the influence of the classification manual on the examining process. It is loose-leaf, and you can subscribe to it through the Superintendent of Documents, Government Printing Office, if you are interested.

Since I mentioned the Search Room earlier, let me fill in a few more details on the total services they provide to the public. They maintain copies of the *Manual of Classification* and its index, plus a name file of inventors who hold U.S. patents from 1931 to the present. They maintain the annual index to patents published since 1837[5], as well as a 3-volume subject index to patents, for the period 1790-1873[6]. They keep a complete run of the Office's *Official Gazette*[7], in which is listed weekly abstracts of all the patents and trademarks issued during the previous week. The *Gazette* is published every Tuesday, and can be obtained on subscription from the Superintendent of Documents, Government Printing Office for $106/year. The Search Room also maintains the numeric set of U.S. patents on microfilm and coin-operated microform reader-printers are available for reviewing this material and obtaining hard copy. Finally, the

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[5] *Index of Patents Issued From the United States Patent Office*, Part I, *List of Patentees*, Part II, *Index to Subjects of Inventions*, Washington, U.S.Govt.Print. Off., 1837-.

[6] *Subject-Matter Index of Patents for Inventions Issued by the United States Patent Office From 1790 to 1873, Inclusive, Compiled and Published Under the Direction of M. D. Leggett, Commissioner of Patents*, Washington, U.S. Govt.Print.Off., 1874, 3 vols.

[7] *Official Gazette of the United States Patent Office*, Section 1, *Patents*, Section 2, *Trademarks*, Washington, U.S.Govt.Print.Off., V.1, 1872-.

"mini-computer", a computer-microfilm (COM) system, in the Search Room enables any public searcher or examiner to call up the full classification information (including cross referenced subclasses) on any or all U.S. patents.

Now, I think we are ready to focus on the objectives of the Scientific Library, which was established by statute in 1836 (35USC8). First, I will remind you of what we do not do.

- We do not classify patents, nor are we involved in the maintenance of the examiners' "shoes".
- We do not maintain copies of United States patents, nor can we search them. As mentioned earlier, the reference tools and the file are all maintained in the Public Search Room.
- We are not involved in any of the "sales" operations in the Office, although we do contribute to some of these activities.
- We can't furnish "in-depth" reference service to the public - we are not staffed for it and we doubt we ever will be. We are happy to answer ready reference queries, by letter, by phone or in person, but don't ask us to undertake extensive bibliographic searching. We just don't have the people.
- Sometimes, we can't be generous with interlibrary loans, and we would like to be, but examining corps needs are substantial and usually pressing and they must come first.
- We do not, repeat not ever, give advise about whether an item, device, plant, etc., is patentable, either in the United States or in another country.

Having said all that, let me hasten to add that the following Library resources are available for the use of anyone who visits us:

- We house over 275,000 bound volumes of what is known in patent circles as "the non-patent literature" - that is, we hold books and bound periodicals covering every facet of the world's technology. Of course, this figure increases as our collection continues to grow.

- We receive in excess of 1,700 serials each year and we reta[illegible]ny of them "permanently".

- We receive the gazettes and journals, together with the paper copies of foreign patents from 28 countries. At present, our files include approximately 12,000,000 copies of foreign patents maintained in numeric order. We also receive the gazettes from many countries who do not print their patents. But receipt of their official gazette enables us to determine whether or not a patent has "issued" and write for a typewritten copy, if necessary.

- We maintain a union catalog of holdings throughout the Patent Office. If we purchase a book or journal for another element of the Office, or if our Library holdings are duplicated elsewhere, this information is noted in our catalog.

- We maintain extensive microform files of foreign patents, a microfiche file of NASA contractor reports, plus journal runs, theses, etc., on 35 mm and 16 mm microfilm. All of this material is available for public as well as examiner use.

- We maintain an extensive reference collection, which includes many of the major abstracting services, significant technical dictionaries, encyclopedias, etc.

- We maintain multiple coin-operated microform reader-printers and book copiers so that visitors may "shoot" copies of the materials they need.

By now, some of our more acute problems (which incidentally set us apart from other sci-tech libraries) are no doubt apparent.

- First, it's hard to develop a reasonable library weeding policy when a United States Statute specifically directs you to always and forever review and consider the totality of everything published. Unlike other sci-tech libraries, if we do turn over our collection every 10 years we are in trouble! So - we need union lists of available materials housed in other libraries worse than almost any other library you could name.

  Ironically, we have just begun to contribute to a few of the significant ones in our geographic area in the federal and private sectors. By the end of this year, however, we hope to have our journal holdings updated, so that we will be able to furnish them for inclusion in three important lists - the reliable and time-tested journal listing maintained for the Metropolitan Washington-Baltimore sci-tech community over the years by the Applied Physics Laboratory; the microform list of journals in Commerce libraries currently being compiled by the Departmental Library; and the on-line listing of the Environmental Protection Agency network - soon to be "fleshed out" with some of the Department of the Interior's holdings as well as our own. By widening our resource base in these ways, we hope and expect to reduce examiner waiting time for needed literature and information.

- Once our journal list is up and running, we hope to furnish the examining units print-outs of our holdings. As you know, on-line data is easily updated; therefore, keeping such a list current is not too difficult. This should provide the examiners more accurate information about our holdings while saving them time and steps. No longer will they need to consult a single card in a library catalog each time they need to know whether or not we subscribed to a specific title in the time period they need to consider.

- Abstracting services in hard copy are OK to a point - but manhandling *all* of the volumes of *Chemical Abstracts* can be painfully exhausting - and information gleaned in this way is often incomplete because it's physically difficult to accurately search masses of bibliographic citations for prolonged periods of time. For this reason (and also because some data elements will *never* be available in hard copy), we are currently evaluating every on-line data base available to the Federal sector. We have developed (and have had approved) a project to experiment with a number of on-line data bases to see how efficiently and effectively we can increase the accuracy of the bibliographic search while simultaneously decreasing the time it takes to perform such a search. Our reference librarians realize they face special constraints in the computer environment. They must formulate search questions and strategies *without* revealing what it is the applicant wishes to patent. If his sling-shot configuration is truly novel, best you not ask the computer, "Have you a record of one exactly like this?" Unless you are quite sure you and the computer are all alone! Our other major worry is whether or not these data bases will stay on-line as they age. What I am suggesting is, again, most of the sci-tech world is not interested in the older literature. We are, however, and if we find, for example, that certain of the American Chemical Society's on-line systems are wiped out after five years, we may have a whole new ball game and a new set of retrieval problems.

- We decided not to join the Ohio College Library Center/Federal Library Committee experimental group for several reasons. Primarily, we feel that many of the data elements in that shared-cataloging base are too general and unrelated for our purposes. By their very nature, academic catalog data bases will be filled with records of history books, economics texts and foreign language grammers. Why should we pay to pass such material on an on-line computer search?

- Microfilming in our environment poses special problems too. We have purchased a camera and intend to pursue a vigorous filming program. (We must - we're out of shelf space!) But aside from the normal copyright considerations, what do you do with oversized patent drawings issued by the British in 1637, each of which is the size of a pair of dining room tables placed end-to-end? Good luck in reducing them to a 4x6 microfiche!

- And while we are on the subject of microfilming foreign patents, some of our latter-day experience has been dicey. Five of the foreign countries with which we exchange patents now furnish us (through a commercial medium) microfilm copies of their current patent issues. This is fine - except that, unlike this country, these other governments do not issue patents in numeric sequence. Result - no sequential arrangement on the film when the month's take is filmed. So - we are preparing concordances - most easily and cheaply updated on EDP equipment - in order to identify which patent of what country is on which reel! How's that for one step forward and two back?

Despite these and other problems, with our Library staff of 52, we successfully:

- procure, process and route all of the Library materials needed by all the units of the Patent Office, in addition to all the materials retained in the Library's circulating and reference collections;

- pursue a realistic book selection policy, based primarily on Ms. Mavity's design efforts, plus her "On-Approval" arrangements with several of the major domestic publishers;

- are undertaking a pilot study of the uses of the non-patent literature by the examiners;

- produce on-demand oral and written translations of the patent and non-patent literature in 18 languages, using a staff of 10.5 professional translators. (Translating in the Patent Office is a special art. It is not enough for the translator simply to render the original in good, idiomatic English; like the examiner, the translator must consider the legal implications and ramifications of the original and must render a "quasi-judicial" interpretation of a piece of technological writing which will stand up in a court case. This is a very special skill, requiring years of exposure to the patent literature and patenting process before it is mastered.)

- maintain a master file of over 12,000 translations prepared by our staff in the past. Copies of our "finished" translations - ones we have prepared for the courts or for the public - are sent to the John Crerar National Translations Center for deposit;
- furnish in-depth reference service to Patent Office staff (and as much limited help as we can give to the public) for both the non-patent and foreign patent literature collections;
- furnish broad and speedy inter-library loan for the Patent Office staff;
- are undertaking a pilot SDI program of "hard copy" selected journal articles to three of our examining groups;
- provide, through our own bindery under the direction of a skilled hand bookbinder, the capability to rebind tattered volumes, and return them quickly to the shelves for use. Additionally, he rebinds worn out-of-print volumes still in heavy use by the examiners and returns them for duty ASAP.

How do you, on the outside, access all of this? I hope I have indicated the relatively few limitations the Patent Office has to place on the uses of the Library and its services by the public.

- As I have indicated, you can subscribe to several of our publications through the Government Printing Office.

- You can request copies of U.S. and foreign patents through our Customer Services Division. These are not free, but their cost is low.

- You can, if you have an application pending in the Office, cite it to the Customer Services Division and request that they furnish you specific references from the patent and/or the non-patent literature. If we don't hold the item, we will try to tell you where to look next.

- U.S. patents are indexed in NASA's STAR[8], in *Chemical Abstracts*[9], and in *Environmental Patent Abstracts*[10], and the IFI-Plenum Data Corporation offers a computer tape data base, consisting of U.S. patents arranged by class and subclass number[11].

- Many libraries, including depository libraries for Federal documents, maintain numeric files of U.S. patents and will, on request make them available for searching. Additionally, the U.S. National Technical Information Service microfilms and sells copies of U.S. patents, arranged in three categories[12].

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[8] U.S. National Aeronautics and Space Administration, *Scientific and Technical Aerospace Reports, a Semi-Monthly Abstract Journal with Indexes*, Washington, U.S. Govt.Print.Off., Vol. 1, 1963-.

[9] Published by The Chemical Abstracts Service, American Chemical Society, Ohio State Univ., Columbus, Ohio, 43210.

[10] A relatively new abstracting service published in "hard copy" by the Princeton Microfilm Corporation, since January, 1970.

[11] For additional information, contact IFI-Plenum Data Corporation, 2001 Jefferson Davis Highway, Arlington, Va. 22202.

[12] Contact the National Technical Information Service, 5285 Port Royal Road, Springfield, Virginia, 22151 for full subscription information.

Foreign patents are indexed and abstracted in various services and tools offered by the Derwent Corporation.13/

If you've a question about a literature cite or a foreign patent - ask us - we will help you if we can. But if you want to eye-ball a dynamic, viable national resource -- visit us -- we'll be happy to show you around.

13/ For a list of abstract services on foreign patents, contact Derwent Publications, Ltd., Rochdale House, 128 Theobalds Road, London WC1X 8RP, England.

VERY HIGH REDUCTION MICROFICHE PUBLISHING

FROM COMPOSITION THROUGH USER ACCOMMODATION

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ABSTRACT: This paper examines the way in which reproducing libraries can utilize microfiche to answer the needs of the information industry. It describes the process by which microfiche publishing has come of age by emancipating itself from its parent, the motion picture industry, and is now developing "stand alone" techniques. That is, techniques which satisfy editorial, bibliographical, indexing, filing and referencing demands of the information industry.

Emphasis is placed on the following key requirements:

1. Standards. It is recognized that as many standards as possible must be retained in order to preserve compatibility with existing equipment.
2. The Unit Principal. A single high reduction image size is recommended which will permit housing data bases from 100 images to 1000 images on a single card unit.
3. Visual Aid Options. The need for eye-readable reference aids such as table of contents, and bibliography, is discussed.
4. A Modular Reader Design. The ability to read material in as many environments as possible without obsoleting basic modules is covered.

INTRODUCTION: The mechanics of conventional microfilm systems is well known to most records managers; however, it is necessary to review present practices in order to make viable suggestions for progress. Most common microforms are shown on the following illustration (Figure #1, Color Slide of All Microforms).*

The roll has some special advantages and disadvantages which I will touch on briefly for the purpose of restricting the area of application to microfiche.

Rollfilm. The two advantages of roll film when compared to microfiche are: 1) The roll or cartridge is produced on extremely efficient equipment with a long history of technical advancement developed for the motion picture industry. 2) Rollfilm has the special advantage of being open-ended in its capacity to house images the same as a bound book since pages can be added or subtracted on a single page basis to exactly fit the document size. Two disadvantages unique to rollfilm are: 1) The linear file sequence lengthens random search time drastically. 2) The cartridge or box used for housing rolls is relatively expensive or bulky compared to fiche.

Since this paper is devoted to microfiche as a medium for publishing information, I will not make further comparisons between fiche and rollfilm but instead will proceed to develop considerations relating to sheet formats.

Obviously the sheet simplifies the packaging of film documents. It also speeds up the process of locating a specific image logarithmically instead of linearly.

HISTORY OF MICROFICHE FORMATS: Microfilm is well recognized as an economical method of distributing information and hence great emphasis has been placed on standardizing fiche formats. The most popular is the NMA 98 image format based on a reduction of 8½" X 11" originals by a ratio of 24X.

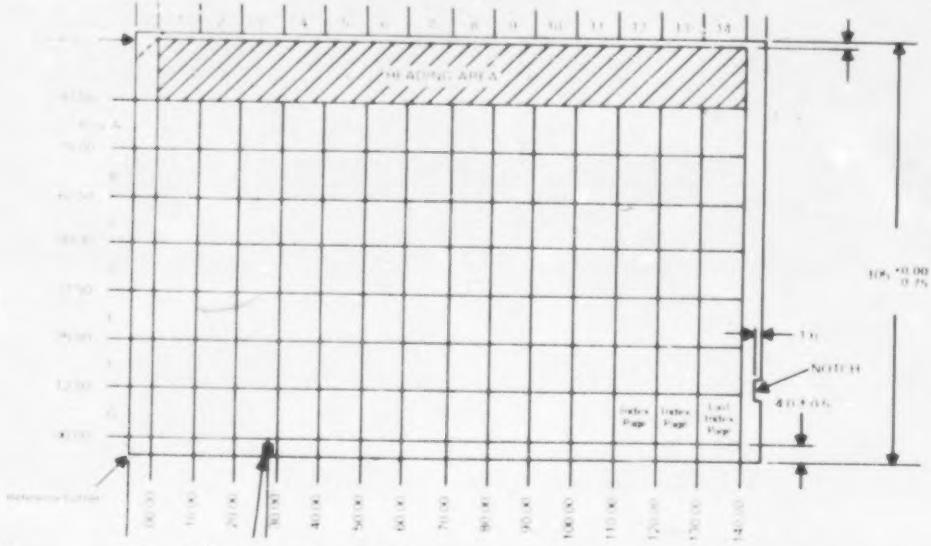


Figure #2, NMA 98 Image Fiche

When this format was developed it was important that existing equipment be utilized wherever possible; therefore, it is essentially equipment-oriented rather than systems-oriented. The need for fiche publication was recognized first by the government and the aerospace industry as a means of reproducing existing letter size technical documents. These were often of low grade graphic composition.

A COMPATIBLE STANDARD SYSTEM: Existing fiche standards can therefore best be characterized as an "accommodation" format with secondary emphasis on user convenience. This is in contrast to publishing for profit in which convenience and esthetic value become the publisher's most important selling points. In other words, information packaging becomes of prime importance.

Since high reduction microfiche will not become standardized until more extensive use has been developed, a coordinated effort has been made to fit the cine-decimal system into existing standards and industry practices as follows:

A. Use of the standard tabulating card dimension as one of the carriers.

B. Use of 105mm standard wide film to be used as a standard fiche height.

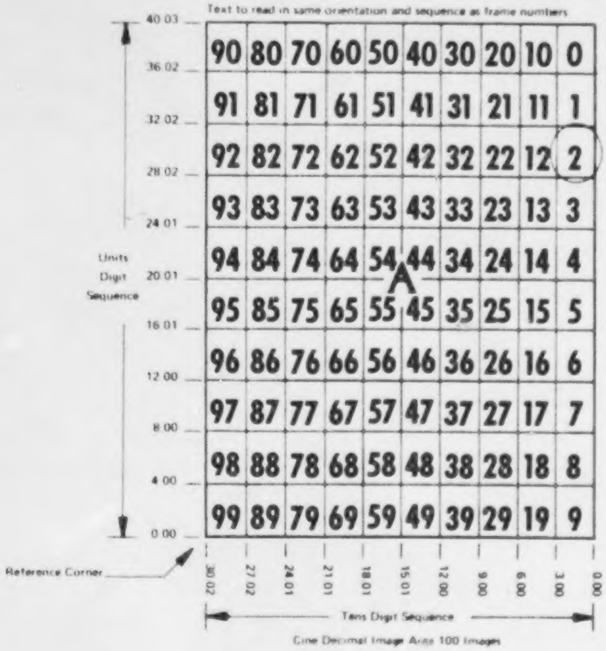
C. Optional use of 148mm width for a fiche format.

D. Use of industry practice image sizes for other high reduction systems.

E. Use of Cine-Decimal (10 X 10) image layout to match the trend toward metrification.

F. Developing all dimensional specifications suitable for submission for standardization when it is justified.

UNIT PRINCIPAL: One very important objective of the fiche format is the ability to unitize one title into one fiche. The principal of one fiche for one title was satisfied in limited use with the 98 image fiche; however, current trends toward larger data bases never before published require that the image count capacity be increased. The solution is increased capacity per fiche by increasing reduction ratios. As image packing density increases the need to improve image location techniques increases. The job becomes ever more important as the number of documents per card unit increases to a thousand. It is for this reason that a simple locating technique must be employed. I would like to describe one such system which is called the "cine-decimal" system.


Text to read in same orientation and sequence as frame numbers
40.03
36.02
32.02
28.02
24.01
20.01
16.01
12.00
8.00
4.00
0.00
Units Digit Sequence
A
Reference Corner
30.02
27.02
24.01
21.01
18.01
15.01
12.00
9.00
6.00
3.00
0.00
Tens Digit Sequence
Cine Decimal Image Area 100 Images

90	80	70	60	50	40	30	20	10	0
91	81	71	61	51	41	31	21	11	1
92	82	72	62	52	42	32	22	12	2
93	83	73	63	53	43	33	23	13	3
94	84	74	64	54	44	34	24	14	4
95	85	75	65	55	45	35	25	15	5
96	86	76	66	56	46	36	26	16	6
97	87	77	67	57	47	37	27	17	7
98	88	78	68	58	48	38	28	18	8
99	89	79	69	59	49	39	29	19	9

Figure #3, Cine-Decimal
10 X 10 Array

Simply defined, it means that all pages are laid out in an array of 10 rows by 10 columns so that a given page number within any 100 page group has a dedicated location according to its decimal row-column equivalent. That is, column 4, row 7 holds page 47, 147, 247, etc. The "cine" prefix is a qualifying addition which establishes that the units digits are in column form (also called cine-mode). This is necessary in order to avoid the ultimate confusion which would arise if the units digit were allowed to fall in either row or column arbitrarily.

The need for a decimal block of 100 pages becomes more apparent as the number of pages per document increases. For example, in the event the document contains 780 pages, a reduction ratio of 75X would be called for and the simple location of any specific page would depend on the cine-decimal block system. To find page 547, locate the 500 block and register column 4, row 7 on the scale (Figure #4, Page

Locater Scale).*

The cine-mode was adopted over the comic mode (unit page sequence horizontally similar to comic strips in the newspaper) after comparing the mechanical and optical physical facts of both formats. By way of explanation I submit the following illustration.

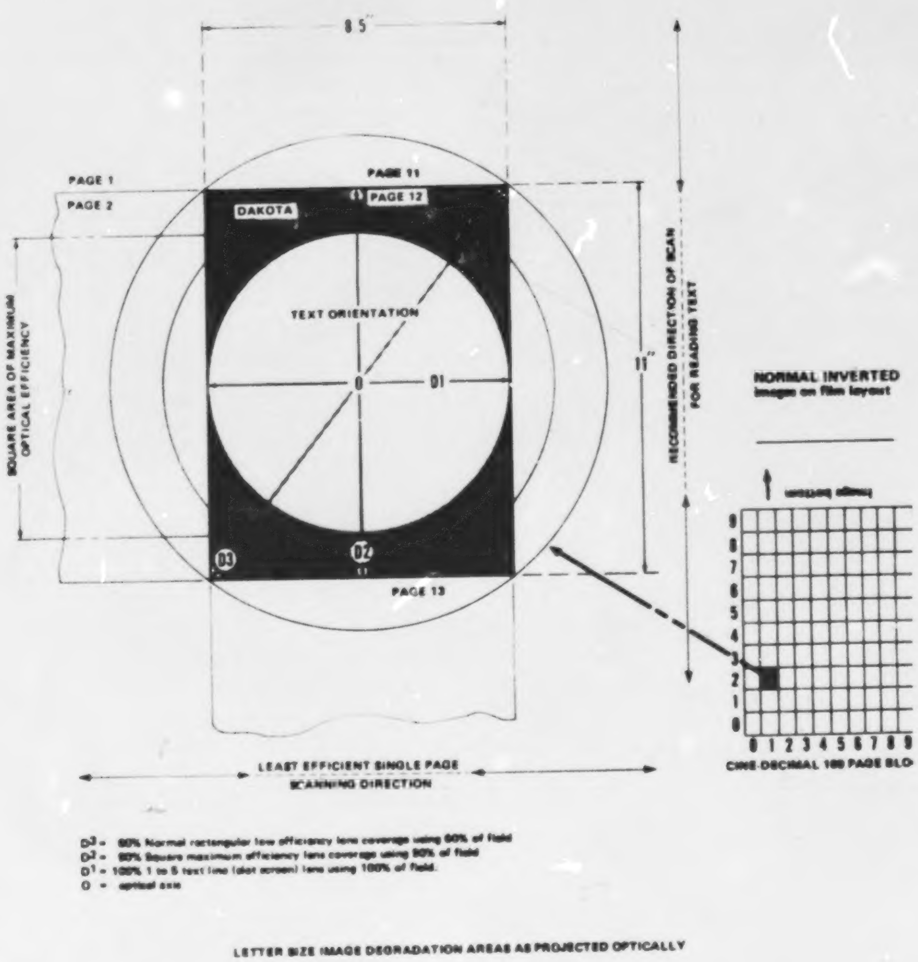

8.5"
PAGE 1
PAGE 2
PAGE 11
PAGE 12
DAKOTA
TEXT ORIENTATION
O
O1
O2
O3
PAGE 13
11"
SQUARE AREA OF MAXIMUM OPTICAL EFFICIENCY
RECOMMENDED DIRECTION OF SCAN FOR READING TEXT
NORMAL INVERTED
images on film layout
0 1 2 3 4 5 6 7 8 9
0 1 2 3 4 5 6 7 8 9
CINE-DECIMAL 100 PAGE BLO
LEAST EFFICIENT SINGLE PAGE SCANNING DIRECTION
O3 = 80% Normal rectangular low efficiency lens coverage using 80% of field
O2 = 80% Square maximum efficiency lens coverage using 80% of field
O1 = 100% 1 to 5 text line (dot screen) lens using 100% of field.
O = optical axis
LETTER SIZE IMAGE DEGRADATION AREAS AS PROJECTED OPTICALLY

Figure #5, Lens Eye View Of Image

It is not self-explanatory but will help me to explain the optical justification of cine-mode. The projection lens reads a field in a circle with ever degrading sharpness as the coverage approaches the document corners. This degradation is proportionate to the lens quality but is present in all lenses. With emphasis on low cost readers, it is obvious compromises are being made in lens design. Even with a good reader which yields excellent images when first installed, aging equipment results in degradation at the corners. By scanning images vertically in cine-mode, the same effect is attained as viewing the credit lines of a movie or TV show. It is always easy to bring the actual line being read to the center of the screen without regard to the top or bottom of a page. The cine-mode results in a continuous smooth flow of the text vertically over the screen using the best of the lens. By contrast the comic mode requires horizontal scanning to change pages and vertical scanning to bring image corners into the center of the screen. This double axis scanning often yields reverse image movement on the screen. The coordination problem is roughly equivalent to patting your head while rubbing your stomach.

WHAT HIGH REDUCTION CINE-DECIMAL FORMAT MEANS TO MICROFORMS

From time to time I will want to refer to a specific example to assist in describing the system. We will assume that we will publish an aircraft manufacturer's maintenance manual for a new model aircraft. It consists of 5000 images to be distributed to 2500 maintenance facilities such as dealers and fleet aircraft installations. The manuals will be updated monthly with changes and new information consisting of 200 to 400 pages per month.

Documentary support of the aircraft includes a maintenance manual, an illustrated parts catalog, a set of indexes to parts, inventory and price sheets to show availability, location and cost of each part. From this very common application it is obvious that a complete publication system must accommodate interim update information as well as annual consolidated catalogs.

COMPOSITION: In order to maintain printing masters in which images are indexable and findable in data bases of all sizes a manageable unit of file must be established. The block of 100 images laid out in 10 rows by 10 columns is logical and an efficient filing unit. It is the answer to composition requirements of unlimited sized data bases.

For maximum efficiency all editions of one publication should spring from common printing masters. These masters must be easily updated without disturbing the integrity of the basic indexing system. In the case of the 10 X 10 array, one strip of 10 images will serve as a unit of change. A good systems planner can do wonders with problems of change when he is able to work with this small decimal unit.

At the same time, the cine-decimal master facilitates the quick location of any page of the text even though the text was indexed on a conventional sequential numbering system. Since both the 10 X 10 block of 100 images and conventional indexes are decimal in nature a row/column cross index is eliminated.

Regardless of the additions to the data base during the update editorial and composition tasks, the master printing block of 100 images in decimal array is retained. This preserves essential indexing integrity and address location of every image from edition to edition.

The printing master provides the basis of all future information distribution.

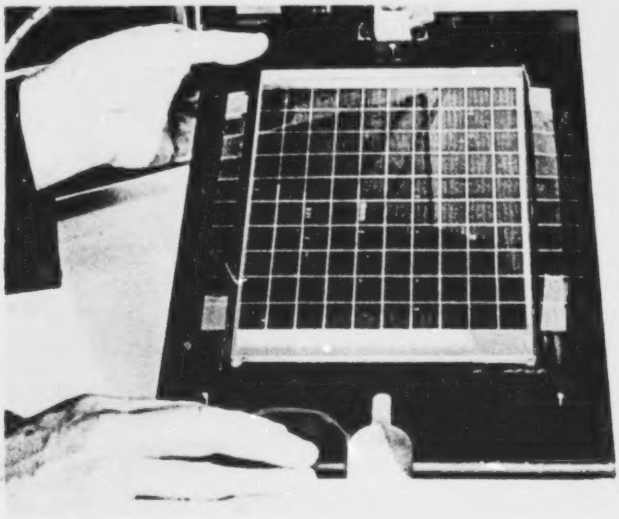


Figure #6, Printing Master

Its features include:

1. Low reduction microfilm which can be produced in any office on a planetary camera (Figure #7, MTP Planetary Camera).* This camera is customized to accomplish several composition functions. A) It has variable reduction ratios to accommodate variations in document sizes from 3" X 5" through 18" X 24". B) It provides variable exposure controls to accommodate different colored originals. C) It yields strips of film in increments of 10 pages which can be individually inserted into new or existing masters for change or update (Figure #8, Strip Master 10 Image).* D) The film may be processed on conventional processing equipment. E) It may accommodate large maps covering a four page surface, fold outs, line illustrations, as well as alpha-numeric and continuous tone material (Figure #9, Paper Input Examples).*

   While accomplishing the diverse composition tasks it retains the sacred 10 X 10 blocks of 100 images.

2. C.O.M. film can also be formated directly onto printing masters (Figure #10, Magnetic Tape).*

3. The film is trimmed and stripped up on a correctable master which is maintained in files ready for printing.

4. Editorial work is simplified since indexing and bibliographic work is done on a one-time basis for each 100 image block regardless of ultimate published form. This contrasts with the row-column method which requires re-indexing and refilming on each update re-printing.

MICRO PRINTING FORMAT OPTIONS:

1. The printing master which is intended for production of high reduction copies may be contact printed to produce a low reduction facsimile master for use in a hard copy center. These master images are an equivalent 16X reduction ratio and will produce superior offset masters and projection prints.

2. The normal high reduction edition of the parts manual may take the form of a 105mm fiche containing 800

images if a standard sized fiche is desired.

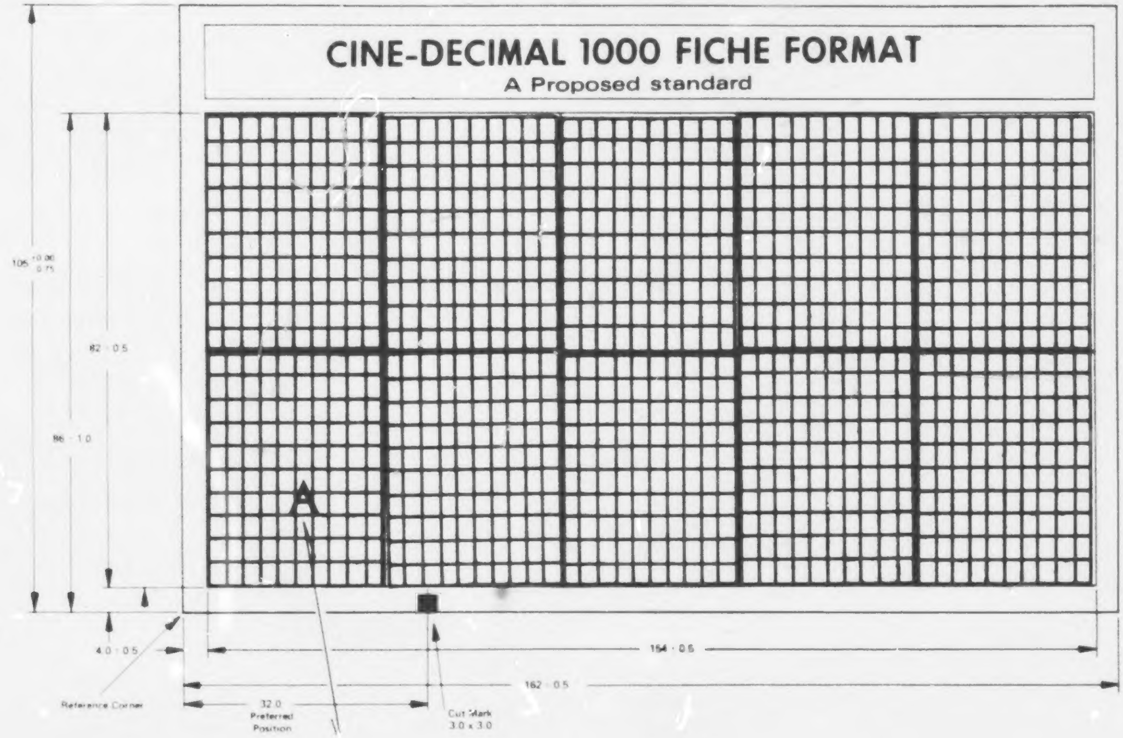
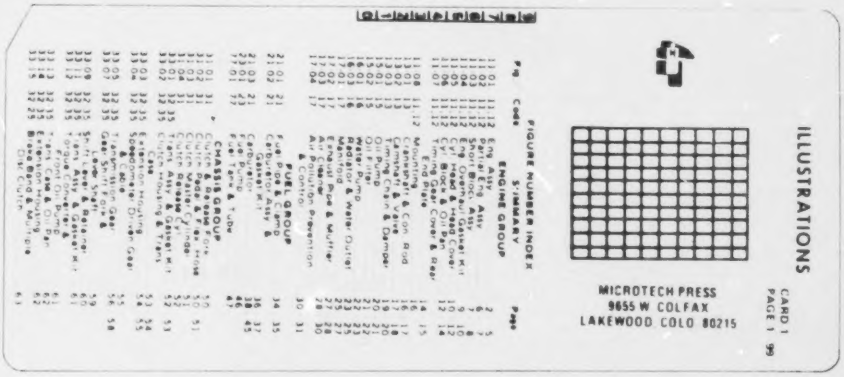

CINE-DECIMAL 1000 FICHE FORMAT
A Proposed standard
A
105 +0.00 0.75
82 · 0.5
86 · 1.0
4.0 · 0.5
Reference Corner
32.0 Preferred Position
Cut Mark 3.0 x 3.0
154 · 0.5
162 · 0.5

Figure #11, Cine-Decimal 1000 Fiche

One thousand images may be packed into a 105mm fiche if the decimal principal is more desirable. The 5000 page catalog will, therefore, be housed in five fiche.

Notice that the integrity of the 100 image block has preserved the numeric address in decimal form. Each 100 image block is positioned sequentially. Therefore, when the fiche reaches an operator he can locate page 447 by scanning to the 400 block and registering page 47 on the scale. (See Figure #17).

Update requirements commence immediately upon the first issue of 5 cards containing 5000 images. The aircraft manufacturer has the option of sending out increments of 100 images in microaperture form or re-printing an entire card of 1000 images. At this point we must compare the features of both formats.



ILLUSTRATIONS

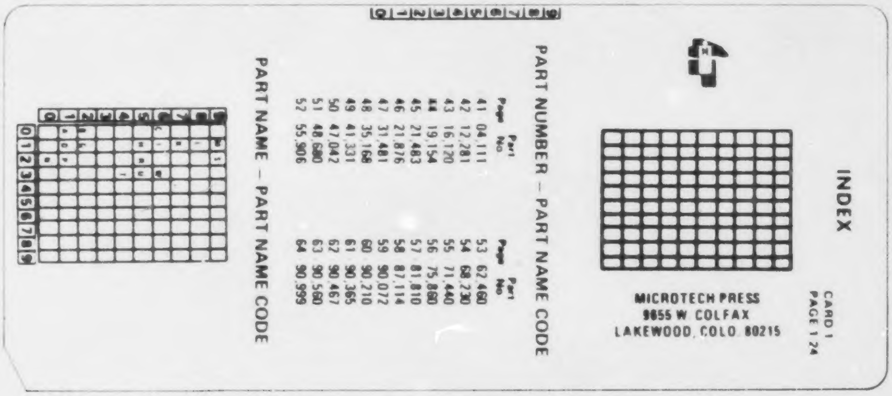
FIGURE NUMBER INDEX

MICROTECH PRESS
9655 W COLFAX
LAKEWOOD COLO 80215

CARD 1
PAGE 1 99

Figure #12, Microaperture Table of Contents

3. The microaperture card format provides space for eye-readable referencing aids such as table of contents, etc. on the card surface.



INDEX

PART NUMBER – PART NAME CODE

Page	Part No	Page	Part No
41	04,111	53	62,460
42	12,281	54	68,230
43	16,120	55	71,440
44	19,154	56	75,880
45	21,483	57	81,810
46	21,876	58	87,114
47	31,481	59	90,072
48	35,168	60	90,210
49	41,331	61	90,365
50	47,042	62	90,467
51	48,680	63	90,580
52	55,906	64	90,999

PART NAME – PART NAME CODE

MICROTECH PRESS
9655 W COLFAX
LAKEWOOD COLO 80215

CARD 1
PAGE 1 24

Figure #13, Microaperture Template Index

Note the template system of indexing on the second illustration as compared with a straight table of contents.

The microaperture printing technique is extremely fast since the distribution film is exposed optically at 100 pages per second on the Hi Res Wide Field Optical Printer.

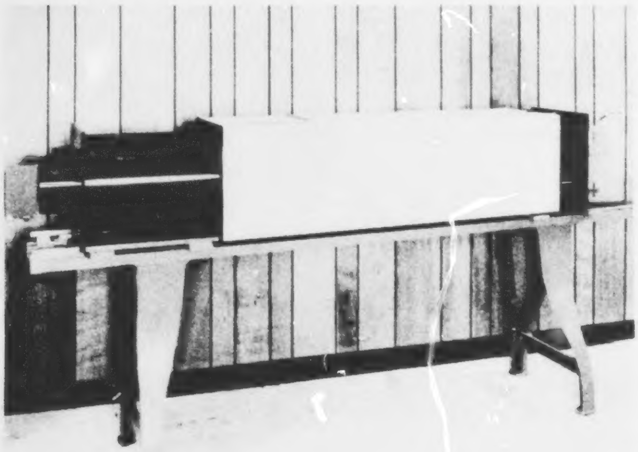


Figure #14, Hi Res Wide Field Optical Printer

This printer eliminates the contact generation required in other fiche formats. It also provides fast turn around and supporting visual aids. Obsolete 100 image blocks of material may then be punched out or obliterated.

FICHE FORMAT COMPOSITION CONTROL:

The following chart illustrates the editorial control available to the publisher while providing two basic format options for either large or small distribution units.

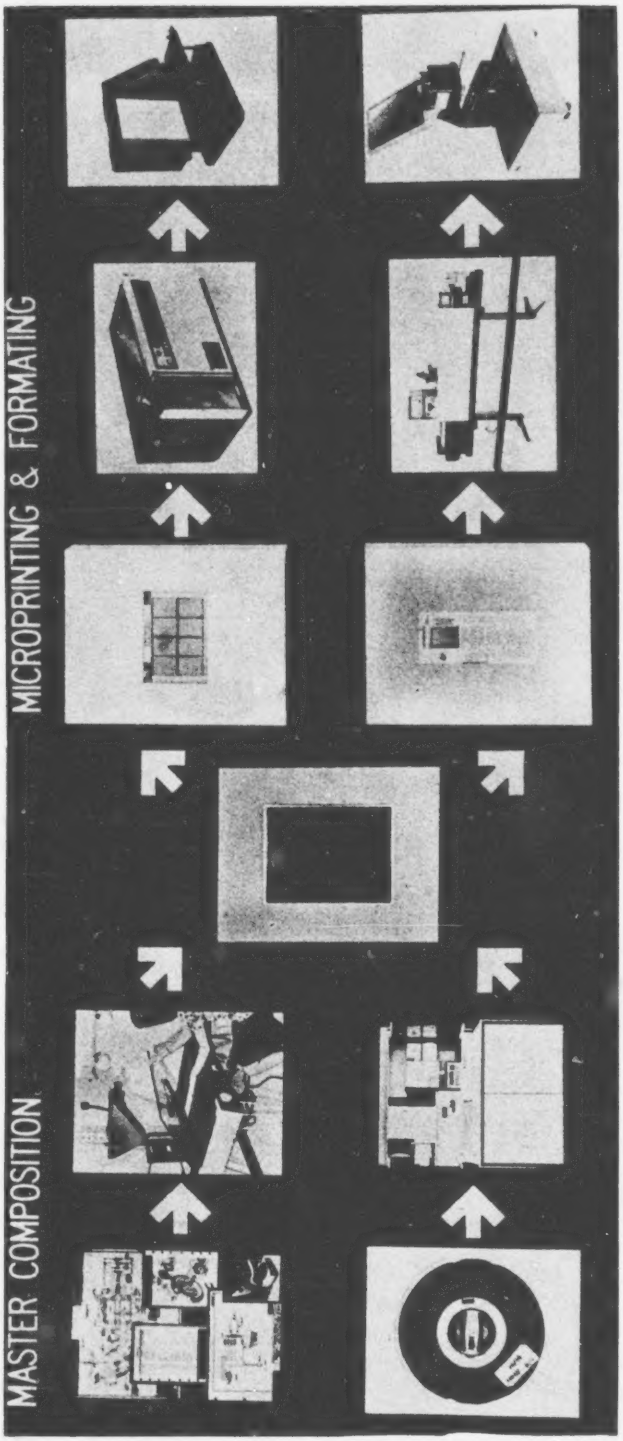

MASTER COMPOSITION
MICROPRINTING & FORMATING

Figure #15,
Flow Chart
Cine-Decimal
System

The masters which remain unchanged may be refilmed with the changed masters onto a replacement fiche. These fiche are contact printed on an automatic contact fiche printer (model CD-1000).

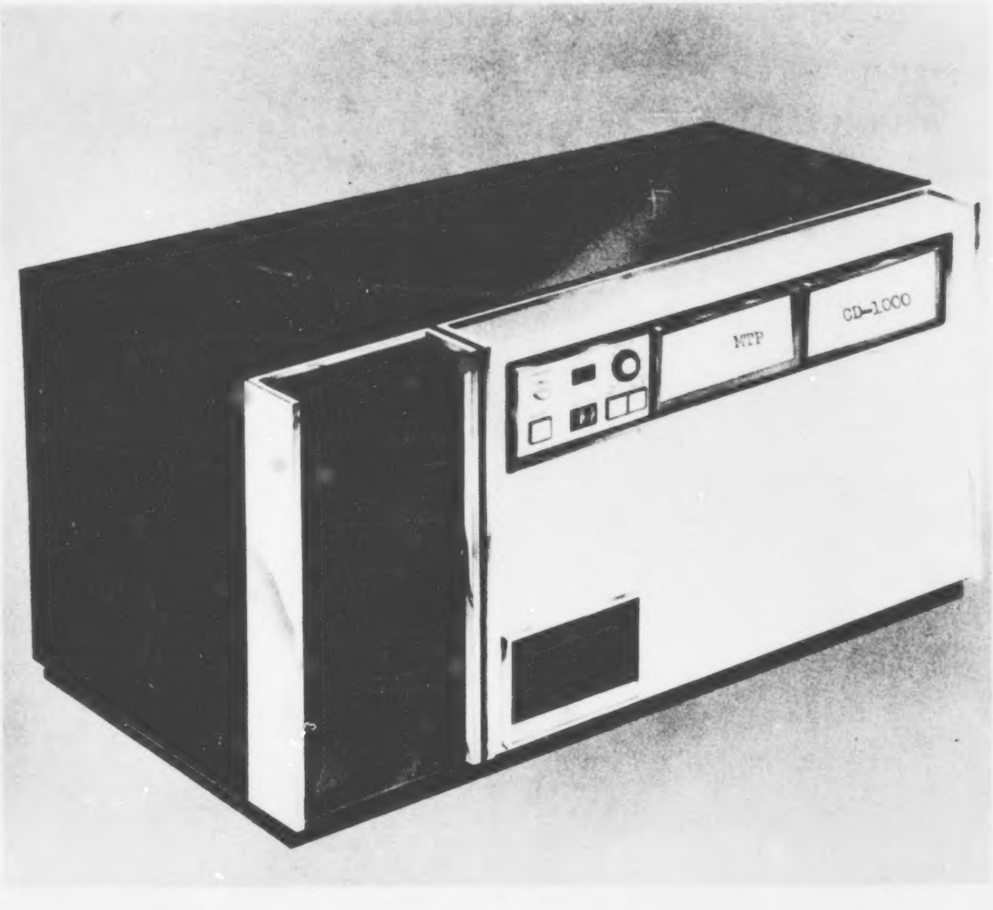


Figure #16, CD-1000 Printer

This option retains the microfiche format while removing obsolete material from the users file.

CINE-DECIMAL READING OPTIONS: The use of high reductions which yield up to 1000 images per fiche at 75X reduction ratio preserve the unit principal and also greatly reduce the handling of fiche in the reading equipment. In the example we are studying, we have replaced 50 standard fiche with five fiche. The use of the same reduction ratio in the microaperture format not only yields the eye-readable referencing aids but provides an image size exactly the same size as the cine-decimal 1000 fiche. As a result, microaperture cards are inter-changeable in the same reading equipment.

The reading options for reading catalog material become numerous with the modular design of the projection system. It is this versatility that makes the use of this equipment more acceptable than with a box type reader.

I would like to describe for you available equipment of modular design.

Figure #17, MTP Projector Module Model PA

The basic projector weighs 2.5 pounds. It will project an image without additional accessories on a white opaque surface. The unit is portable and operates on automotive 12 volt current. An available power converter operates the unit on 117 VAC 50/60 Hz current. The projector is interchangeable and may be mounted in the viewing style suitable to the customer.

The projector comes equipped with a microaperture card stage and index scale. The basic projector can be equipped with a fiche scanner for standard height 105mm fiche. (Figure #18, Double Fiche Scanner Model MTP 324).*

The scanner will accommodate two 105mm X 148mm standard sized fiche. The scanner has one glass flat to support one or two fiche. A disposable acetate fiche sandwich holds the fiche to protect the film from scratching. When the acetate becomes scratched or dirty it is replaced with another sandwich. This scanner will accommodate 2000 images contained on two fiche in the cine-decimal 1000 format at one time. You can readily visualize the possibilities for update and also comparison of old and new documents. Our 5000 image example may be so edited that the 2000 images in the viewer may well constitute 95% of the reference activity.

Office Viewing.

Figure #19, Model 3R Viewer Assembly

For use as a conventional desk-top reader the projector and scanner may be assembled into a rear projection screen assembly. Information clerk and order clerks might use such a configuration.

Shop Use. When used in a parts department where the operator must stand at a counter in a dirty shop environment, the VIP projection system is recommended.

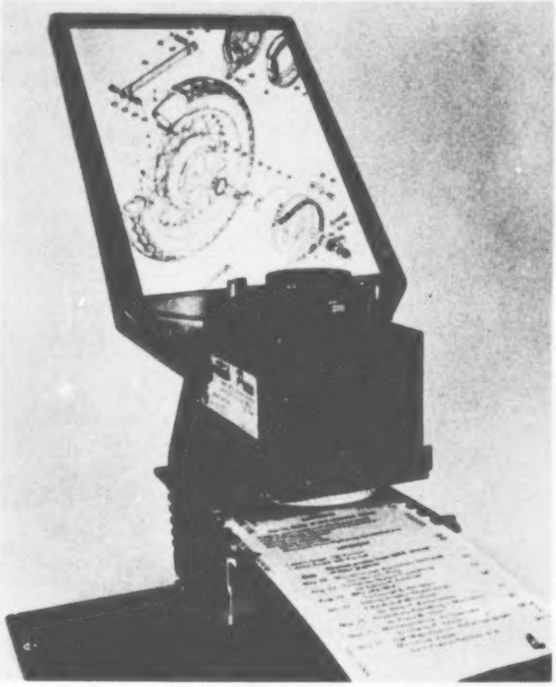


Figure #20, VIP Assembly

Note the lack of bulky equipment on the counter top. The VIP system stands for "Virtual Image Projection". This means that the operator is viewing a reflected image in a mirror. The image is being projected on a ceiling-mounted directional screen. Depending on ceiling height the image averages 300% larger than original size. The image cannot be read except in the mirror since it is reversed and extremely dull when viewed at a wide angle. The projector can be rotated to allow the person on the opposite side of the counter to read the image. This system requires a fixed location for each overhead screen installation. Additional screens cost $3.50 per square foot. One ideal feature of the VIP system of viewing is that it will function in extremely bright roomlight.

Automotive Field Use. This example may require maintenance material be taken into the field and viewed in an automobile. Several options are open. One most viable is the virtual image viewing similar to the shop installation.

Another possibility is the direct projection onto an opaque screen placed on the floor as in the illustration of law enforcement applications (Figure #21, Sheriff's Car).*

Field Sales Use. (Figure #22, Brief Case Model)* Although not required for maintenance applications, the projection system will accommodate the needs for quick setup salesman's catalog applications. It is not practical to print only a few catalogs (one per salesman) because of the cost of composition and plate making for the hard copy catalog. Experience shows that salesmen do not like to carry equipment and will abandon it if at all possible. Therefore, the company which sees the economies of publishing dealer catalogs on microfiche must not forget the needs of the traveling salesmen. The brief case model shown is a feasibility model only and will be mechanically simplified.

To illustrate other possible configurations of a modular system of viewing, I would like to show you some other futuristic concepts:

(Figure #23, Viewer Desk Interior)* For desk surface viewing with bi-focal glasses the projector may be inverted and the image produced on the desk surface from the interior of the desk.

(Figure #24, Isolation Booth)* In the case of the student or executive who must combine both visual and audio information, it is necessary to isolate the user. This is one concept not actually available due to lack of current demand.

(Figure #25, Reclining Viewing)* For patients who are bedridden or for relaxed viewing of microfilmed material, the projector can be placed beside a bed and images of extremely large size can be projected on the ceiling. With the 12 volt system it is safe if the user goes to sleep.

(Figure #26, Classroom or Group Viewing)* Shown here is the use of the projector with rotating mirror turret to provide an image on a wall-mounted screen. The size of the group may demand subdued lights or the use of a directional screen.

The need to produce a projector which will do all of these things and still be useful for viewing other image sizes is one of the things that the public has a right to demand. While it is not possible to provide every configuration at the outset, provision has been made for the interchangeability of lenses and lamp systems to accommodate other known fiche formats.

Viewing configuration design considerations were very slow-moving developments since the projector module had to be adaptable to be all things to all people. It must work with an opaque screen, rear projection screen, from no mirrors to 4 mirrors in any combination. Not only must the image be oriented correctly and right-reading, but it must provide means of image rotation and index scales which will work in all of these available configurations. After many trials and experiments, it was found that 11 of the variables could be accommodated by careful design. I consider this versatility to be the key to wider acceptability of microfiche.

WHY BOTHER?

The estimated paper printing service industry for 1973 will exceed $30 billion (per U. S. Department of Commerce figures). Of this, $11 billion is in the areas which can expect some penetration from microfiche printing. Paper mills are increasing prices and falling behind on supplying demand. The U. S. postal service has asked for a 142% increase in second class mail rates over five years. Other rates are climbing. Labor costs are increasing in the printing trades. Time delays in delivering printed information are increasing.

If we don't bother, we will be starved for essential information when we need it. The micropublishing industry is dedicated to the "need to know" field of information distribution.

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3. Wynn D. Crew, "The Microaperture as a Method of Publishing", Records Management Quarterly, Vol. 5, No. 2, pages 22-27 & 33.

4. Wynn D. Crew, "The Versatility Factor of the Microaperture High Reduction Microaperture System", Seminar Proceedings, Microforms and Automation in Publishing, May 1, 1971, ANACAPA Chapter, Society of Technical Writers and Publishers, Box 519, Port Hueneme, Ca. 93041.

5. Dr. Felix Reichman, Microform Technology Project, Task 1, Bibliographic Control, Association of Research Libraries, 1427 New Hampshire Ave., N. W., Washington, D.C. 20036, 1970.

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8. Ed., "A Management Briefing on New Microfilm Tools". Administrative Management Magazine, July, 1973, pages 28-42.

9. Wynn D. Crew, "A Basic Design to Increase the Usefulness of Microfiche". Proceedings, Second TAPPI Reprography Conference, Washington, D.C., November 27-29, 1972.

*Indicates Slide Used In Verbal Presentation Only.

BINDING--HOW AND WHEN, HOW TO REPAIR YOUR OWN

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U. S. Geological Survey library
Denver, Colorado

ABSTRACT: A lecture and demonstration on how to repair your own material and do what we in our library call "short-cut" binding, an inexpensive yet durable way of binding a piece to give protection for circulation, especially for small libraries when funds may be extremely short for commercial binding.

First, few libraries are equipped to do permanent binding. Budgets may be so small that sending material to a commercial binder is next to prohibitive. I will endeavor to talk about and demonstrate how to repair your own material and do what we in our library call "Short-cut" binding, which is a way of at least temporarily binding a piece which is long lasting, durable, and protects the piece for heavy usage.

As to When to repair depends on the condition of the volume: Is the spine getting too weak, causing pages and signatures to fall out? How severe are the spine and covers damaged? How much is the book in use? Of what value or age is the book--is it considered a rare book, for instance? These and other things are to be considered. In other words, would repairs put the volume back into circulation in a sturdy condition again, or is it in such bad condition that rebinding by a commercial binder is the only answer. The type of material and its value and amount of usage all has to be taken into consideration by the librarian. We have found that periodic maintenance and repairs before the volume has become too damaged help to reduce rebinding and replacement costs.

The subject of How to repair your own really can become rather broad. With the help of the library supply catalogs, many suggestions can be utilized that may be applicable to your particular needs and situations, and from there, much initiative and imagination can be applied.

I will show you some of the ways in which we repair our own material: The use of Norbond liquid plastic adhesive (from Demco Library Supplies) is almost endless because it is quick drying, dries smooth and clear, remains permanent, will not yellow, no odor and is water soluble. I will show you some of the ways in which we make use of it:

Inserting loose pages; reinforcing and gluing covers to spines of paper back material; glazing of spines and frayed corners of bound volumes for protection; adhering and coating of labels to avoid smearing. You may discover many other uses.

There are many types of mending tapes that can be used for various purposes: For bound volumes when the covers become loose or are beginning to tear from the inside of the book, or loose joints or sections, Scotch book tape no. 845, or adhesive cloth tape serve very well to reinforce the piece. There is also a thread-drawn tape which is excellent and will not make a bulge inside of piece at the spine. When the outside of the spine is showing much wear or coming apart, mystic tape (which is already sticky on one side) or recasing leather can be glued in place with Norbond.

For paperback material, masking tape or the Scotch book tape is good for repairing and reinforcing spines and covers, and replacing torn paper covers to the spine once again.

For torn pages, always use the Scotch Magic mending tape. (Never use ordinary Scotch tape which eventually becomes dry, brittle and yellow.

Now let us turn our thoughts to the "short-cut" binding, which I mentioned at the beginning. This type of binding is especially helpful for material which is too thick to process into a regular pamphlet binder available from commercial supply. Materials needed are: Binding board, Recasing leather, Double stitched binder (which comes in a variety of spine widths) and Norbond liquid plastic adhesive (available from Demco Library Supplies) and also a plastic bone folder.

First, measure the spine of the piece to be bound. Then choose the double stitch binder with the same spine width and cut the same length as the piece. With the norbond adhesive, glue the piece snugly into the inside portion of the double stitch binder. Next, after cutting the binder board to size of the piece, glue it to the front and back, offsetting the edge of the board about 1/4 inch from the outer edge of spine. Now, cut a strip of recasing leather about two inches longer than the length of the spine. Miter each end the inch allowed, making the two inside straight cuts at each end the same width apart as the width of the spine of the piece, then making the next cuts at an angle toward the outside of the recasing leather. Fold the portion of the recasing leather that is the width of the spine to the inside and glue flat. Now, spread the norbond adhesive on the recasing leather except for each end that has now been mitered, and left extending. Place the spine of the piece on the center of spine portion of the recasing leather, and smooth the edges of leather upward on back and front of book. Then, using the edge of a plastic bone folder, rub up and down at the edge of the binder board where it has been offset from the spine. This will indent the recasing leather to form the finished look of a spine. Next, after applying norbond to the extended ends at the top and bottom of recasing leather, turn to inside and adhere to the binder board. You now have a finished product that can withstand much use and attractively stand on the shelves.

I have mentioned only a few ideas that can be used and are the main ones we rely upon. I am sure that once you launch into this project of repairing and "short-cut" binding you will find it both challenging and profitable and you will be surprised what new ideas you may develop.

SMALL PURCHASES IN THE FEDERAL GOVERNMENT

by

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U. S. Department of the Interior
Office of Library Services

This paper discusses the history of small purchases and the results of the study by the Commission on Government Procurement. The definition, policies and procedures of small purchases ($2500 or less) are examined in the light of preliminary purchase considerations and current practices. Detailed definition and discussion is given to three basic small purchase techniques: imprest fund purchases, blanket purchase arrangements, purchase orders.

As librarians many of us are unaware of procurement procedures. Depending on agency policy, delegation of purchase authority varies; however, unless you are aware and have an understanding of small purchase technique and procedure your library may be utilizing valuable administrative time in unnecessary routines. The primary purpose of this discussion is to enable you to better understand the history, definition and techniques of small purchases. The secondary purpose of this discussion is to help reduce administrative cost in your agency through accomplishing small purchases by

A. Understanding the simplified purchase techniques.
B. Developing a knowledge or appropriate use of techniques.
C. Encouraging their use when advantageous to the government.

Many problems relating to the federal government's procurement of goods and services have been with us since the beginning of the Nation. The most significant developments in procurement procedures and policies have occurred during and soon after periods of large scale military activity. During the Revolutionary War period, Congress approved the permanent appointment of a Quartermaster General. In 1792 Congress passed the first law regulating federal procurement providing that all purchases for the Army were to be made by the Department of the Treasury. The year 1809 brought the first of a long series of acts requiring formal advertising. Between 1829 and the Civil War no major procurement legislation was introduced. In 1860 Congress enacted a law requiring advertising for purchase, except for matters of "public exigency." Twentieth century reforms were manifested through numerous boards and commissions: Dockery Commission, Keep Commission, General Supply Committee, War Industries Board, Bureau of the Budget and GAO (created in 1921), and War Production Board.

Between World War I and World War II, no major procurement legislation was enacted; however, within two weeks after Pearl Harbor the first War Powers Act was codified and authorized negotiation of contracts. This Act put federal purchasing on equal footing with private industry. In 1945 Congress requested that agencies suggest procurement policy. The result of this request was the Armed Services Procurement Act of 1947 and the Federal Property and Administrative Services Act of 1949. Military agencies operate under the former and civilian agencies, the latter. These Acts guide our procurement policies of today.

Government procurement is big business. Look at the statistics on "Estimated Government Expenditures for Procurement and Grants." With dollar amounts such as this, continual refinement of the procurement process is needed.

In order to better refine government procurement, the Commission on Government Procurement was created in 1969 (Public Law 91-129) to recommend to Congress methods "to promote the economy, efficiency, and effectiveness of procurement by the executive branch of the federal government." The Commission's report was given to Congress January 20, 1973. Some of the more important recommendations were the following:

1. Establishment of a central office of Federal Procurement Policy to take leadership in procurement policy and related matters.

2. Increase of the statutory ceiling on procurements for which simplified procedures are authorized to $10,000. See from these statistics the vast quantity of procurement actions for $2,500 and under.

3. Enactment of legislation to eliminate inconsistencies in the Armed Services Procurement Act and Title 3 of the Federal Property and Administrative Services Act by consolidating the two statutes and thus provide a common statutory basis for procurement policies and procedures applicable to all executive agencies.

The following material will center on the policies and procedures for the purchasing of supplies and non-personal services from commercial sources when the total amount involved in any one transaction does not exceed $2,500 (41 CFR 1-3.203 Purchases not in excess of $2,500). These materials are considered small purchases.

Generally, small purchases can be made by negotiation. Negotiation means obtaining a sufficient number of quotations from qualified sources of supply to assure that the procurement is fair to the government (41 CFR 1-3.603 Competition).

Competition can usually be obtained by soliciting quotations within the trade area. The number of quotations required will depend on the nature of the article, urgency of purchase, information obtained in making a recent or similar purchase, past experience concerning dealer's prices, and dollar value.

Recording of the quotation information depends on the procuring agency; either oral or written solicitations may be utilized as support data.

In exercising small purchases you are responsible to the Federal Procurement Regulations (or Armed Services Procurement Regulations) and your own agency regulations.

One essential preliminary consideration in small purchasing before taking procurement action is the availability of needed supplies/services from government sources and from contracts of other government agencies. Listed on this transparency in order of priority are the established sources of supply which must be utilized under normal conditions.

A small purchase technique involves individual requisitioning, solicitation, price analysis, ordering, delivery, acceptance and (except for BPA's) payment.

SMALL PURCHASES

Established Sources of Supply

Established Sources	Reference
1. Excess Personal Property	See FPMR 101-26 and FPR 1-5.3.
2. GSA Stores Stock	See FPMR 101-26.3 and Stores Stock Catalog
3. Federal Supply Schedule Contracts	See FPMR 101-26.401-2 and individual contracts as well as Index and Guide to Federal Supply Schedule Contracts.
4. Consolidated Purchase Program	See FPMR 101-26.501-2
5. Federal Prison Industries	See FPMR 101-26.601 and Schedule of Products made by Federal Penal and Correctional Institutions.
6. Schedule of Blind-made Products	See FPMR 101-26.601 and Schedule of Blind-made Products.
7. DOD Contract Bulletin for Lubricating Oil and Transformer Oil	See FPMR 101-26.602-2 and Oil Contract bulletin published by DPSC.
8. D.C. Government, Department of Corrections	19CG 890 and Price List of Industrial Products and Services, Ind. Div. Department of Corrections, D.C. Government
9. Local term contracts (agency and interagency)	FPR 1-3.607
10. Blanket Purchase Arrangements	FPR 1-3.606

Small purchases can be made through:

1. Imprest fund purchases
2. Blanket purchase arrangements
3. Purchase orders

Imprest fund is a fixed cash or petty cash fund in the form of currency, coin, or government check which has been advanced by an official government disbursing office (without charge to a government appropriation or fund account) to a duly authorized cashier for cash payment or other cash requirement purposes as specified in his designation or authorization (41 CFR 1-3.604 Imprest Funds) (petty cash) method).

Imprest fund procedure is used for four methods of purchase:

1. Advance of funds
2. Personal funds (reimbursement of funds used for government purchase)
3. Payment by cashier (to vendor)
4. C. O. D. shipments

Examples of imprest fund cash purchases are emergency purchases, postage stamps, emergency travel advances, taxi fares, equipment repairs, etc.

Cash purchases are generally advantageous in the following cases:

1. Vendors are reluctant to honor small purchase orders
2. Vendors are not equipped to bill for purchases
3. Supplies or non-personal services are needed at locations not served by purchasing office
4. Source of issue is not convenient to point of use
5. Local credit arrangements for monthly billing are impracticable

Small purchases made through imprest fund procedures cannot exceed $150.00 for any one transaction, except for emergency conditions in which the amount for one transaction may be increased to $300.00.

Frequently, a "Receipt for Cash-Subvoucher" (Standard Form 1165) is used by the cashier to document the transaction. A sample of this form is shown on the overhead projector. The cashier will have the employee making the purchase sign the "Interim Receipt for Cash" as a receipt for cash advanced. The employee will then give the subvoucher portion to be used by him to secure a receipt from the vendor for the cash purchase unless the vendor furnishes a receipt. When the purchase is made, the employee returns the S. F. 1165 and the vendor's receipt (if furnished) to imprest fund cashier. The cashier will require the ordering employee to sign the S. F. 1165 or vendor's receipt and indicate appropriation, allotment, etc. At this time the cashier marks the Interim Receipt for Cash stub void and returns it to the employee.

The second simplified purchase technique is the blanket purchase arrangement (41 CFR 1-3. 606 Blanket purchase arrangements). The BPA as it is commonly called is a technique to purchase day-to-day requirements through arrangements with vendors or dealers to furnish, on a "charge account" basis, such supplies or non-personal services as the government may order from such sources during a stated period of time. The BPA was primarily designed to reduce the amount of documentation in connection with small purchases.

BPA's should be utilized under the following circumstances:

1. When a specific item, quantity, and delivery requirement is not known but some demand is anticipated.
2. When there is a need to provide local commercial sources of supply to a certain office or project that does not need the authority to purchase otherwise.
3. In any other case where the writing of numerous purchase orders can be avoided through use of this procedure to reduce administrative costs and result in overall savings.

BPA's should be made with local firms from whom numerous individual purchases will likely be made in a given period. At times it is advantageous to make BPA's with several suppliers for the same classes of items if known that prices vary from one vendor to another.

A BPA is a charge account.

It differs from a personal account in the following ways:

1. Government funds
2. Controls may be exercised
3. Two-way terms - individually of BPA compared with charge account (agreement between buyer and seller)

It is the same as a personal account in the following ways:

1. Both require periodic billing
2. No contractual obligation exists until purchase is made

BPA's are usually in writing and will indicate information as shown on the sample:

1. Who will place orders
2. How orders will be placed
3. What documentation is expected of seller
4. When payment will be made
5. What discount, if any, will apply
6. What limitations apply

The third simplified purchase technique is the purchase order.

The purchase order method of procurement is necessary when greater documentation is desired:

1. To establish a record of funds being obligated
2. When vendor desires a written order
3. When list of items is long
4. When item description is complex
5. When supplier is remote
6. When delivery, payment, inspection, packing or other aspects are facilitated.

Purchase orders should show:

1. What - description of item or service
2. Where - consignee name and address
3. When - delivery date or dates
4. Who - ordering office name and address
5. How - price and other applicable terms

I shall now briefly mention and show examples of frequently used purchase order forms (41 CFR 1-3.605 Purchase Order forms); however, some agencies utilize their own forms which deviate from the examples.

Purchase Order-Invoice-Voucher, Standard Form 44, is used as a simple pocket size form designed primarily for on the spot over the counter purchase of supplies and non-personal services. It is a multi-purpose form which can be utilized as a purchase order, receiving report, invoice, and public voucher. This form can be used when the amount is not to exceed $2,500; one payment is contemplated; limited numbers of copies are required; agency determines that it will reduce expense by simplifying purchase.

Order for Supplies or Services, Standard Forms 147 and 148, are multi-purpose forms designed for use as a purchase order, delivery order, receiving and inspection report, and invoice. This form is used for small purchases not in excees of $2,500 or a delivery order for ordering or scheduling deliveries against established contracts or from government sources of supply.

I hope this discussion has been beneficial to you in better understanding general procurement and small purchases. As librarians we must be aware of procurement techniques so that we can more effectively operate our own library, use our manpower more efficiently, and reduce administrative costs.

HOME BINDING OF SERIALS AND PERIODICALS

Dolly May Kraus
Library Binding Assistant

Arthur Lakes Library
Colorado School Of Mines

Abstract

How to stretch dollars is one of the major problems for most librarians today. The "Home Binding" or "In-House Binding" of serials and periodicals utilizes a most effective budget-saving device which protects and lengthens the life of each volume and frees money for the purchase of more hard bound volumes, serials, periodicals and other library needs. The different methods of binding volumes can easily be adapted to whatever the needs, usage, or the circulation of the serials and periodicals.

+ + + + +

There are many different methods of home binding from very simple to the more complicated ones. Which method you use in your library will depend on the equipment that you have and how much money in the binding budget. Some of the methods are "Magic-Mend", "Drilling" and "Overcast" or "Oversewing" by hand.

The "Magic-Mend" method is the one used at Arthur Lakes Library. It is the one best suited for our needs, budget and equipment in the amount of space alloted to the binding in the library.

Home binding can be done in any library with inexpensive equipment that can be made in the library or equipment purchased from a Library Supply Store or local hardware store. The basic equipment and supplies needed are: book press; Hacksaw or any brand of bookbinders saw; paper cutter with at least a 15 inch blade; heavy duty scissors; two or three 1/2 inch brushes; ruler; bone folder; electric stylus; transfer paper for stylusing; plastic adhesive; pressboard for covers; double stitched binders tape; silk finish adhesive cloth for spines of covers; bookbinders cord; razor blades or a sharp knife.

After you have collected the issues to be bound for each title, you must predetermine the width that you want the volumes to be and arrange them in piles of uniform thickness. Check for indexes, missing issues, pagination and make out binding records etc.

The frequency of binding would depend on the use of each serial and periodical in the library.

The following is an outline of the steps taken to bind a volume by the "Magic-Mend" method. Samples of each step will be shown at the oral presentation.

1. Put issues in book press letting them extend beyond the press 1/2 inch. (See figure A.)
    - A. Be sure to tighten press so that issues will not slip.
    - B. May put two or more volumes in press at one time with 9 x 11 x 1/2 inch boards separating the volumes.
2. Saw three saw-cuts along the spine about 3/16 inch deep or until cut has penetrated middle page of issue. (See figure A.)
3. Place length of bookbinders cord the width of the volume in each saw-cut.
4. Spread spine with plastic adhesive.
    - A. Put at least three coats of adhesive and let dry thoroughly between each one.
    - B. The layers of adhesive is what gives each volume the protection and holding the issues together to make a more permanent volume.
5. With razor blade or sharp knife cut the cord and remove the volumes from the press.
6. Measure and glue the double stitched binder tape on spine of volume.
7. Measure volume and cut pressboard for covers.
8. Assemble covers. (See figure B.)

9. Stylus cover with the title and call number etc.

10. Glue the cover to the volume.

11. Trim Corners of volume.

12. The volume is now ready to be processed for circulation.

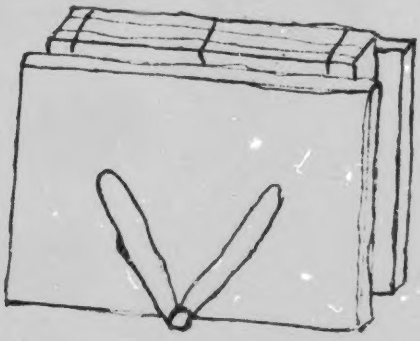

FIGURE A

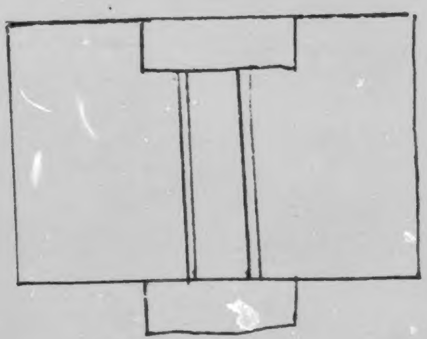

FIGURE B

NEW AND NOT SO NEW EQUIPMENT AND SERVICES

BLANCHE N. LEA
Librarian
DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
Region VI
1100 Commerce Street
Dallas, Texas 75202

ABSTRACT

Space saving with mobile shelves is now available. Space savers for filing newspapers and periodicals, are available as attractive filing cabinets instead of the traditional government gray.

Is book theft your problem? If so consider BOOK-MARK.

Let's get away from the traditional study carrells. We can make study stations in open spaces.

New services now available are - Housing and Development Reporter and United States Code Service.

A rare opportunity was given to me when we were told our regional office (Department of Housing and Urban Development) would move from Fort Worth, Texas to Dallas. I was told we could have all new furniture except for our two desks and card catalog case.

I do not have the ability to visualize space, that is, how a room will look with any given piece or amounts of furniture. I was at a loss on how to plan shelving needs. I knew that I wanted to utilize work-flow methods I had learned years ago at a work-flow conference held for the librarians of the Military District of Washington. I wrote several of the library furniture companies and asked if they had floor plans of small business libraries to whom they had sold equipment. Remington Rand responded with some copies of their house organ Pioneer. The layouts in the magazine gave us some concrete idea of what we wanted to order. Since our initial drawing of furniture arrangement, the size and shape of the room allotted to us has been changed more than once.

We have always thought when we purchased furniture it must be done through the Federal Supply Schedule. After we had gone through the usual gymnastics of using the Federal Supply Schedule and our order had been placed I came upon some notes from the FLC Meeting, September 20, 1972. These notes were that GSA had made a recent decision to permit agencies to order from any supplier, either through GSA or directly. I have not been able to determine if this decision had a time limit or not.

If we are required to stay with the Federal Supply Schedule, the current one is FSC Group 71, Part XIII Section A, Library Furniture for the period January 1, 1973 through December 31, 1973.

When the schedule was first issued it had only four furniture suppliers. Additional names have been added. If you are contemplating buying furniture and you wish to check to see if a certain company is on the schedule you can get the information by calling FTS number A.C. 703-557-8346.

The whole idea of buying new library furniture and supplies intrigued me. When I was asked to tell some of the new ideas I found, it was not too difficult.

A problem for almost every library is where to put the fast proliferating collection. Standard fixed-range storage is an obvious space-waster. Estey Corporation and Remington Rand are two of the companies having compact mobile storage systems. These mobile storage systems save more than half of the expensive floor space traditionally required. The best way to visualize these systems is think of a row of double faced shelving placed between two single faced sets of shelving that faces each other. Imagine pressing a button, the single faced shelving moves away leaving the double faced shelving accessible. It is possible to use end panels that close the whole unit off so it appears to be a solid wall. These end panels can be in color to make the storage units attractive. I saw some of this type of shelving at the Kimbell Art Museum in Fort Worth, Texas. The whole thing operates as easy as pressing a light switch. There are safety features to keep patrons and staff from getting closed in. Folders on these are available from Remington and Estey.

In our somewhat mobile libraries in government, where we are moved around, the mobile units might not be the best idea. On the other hand once installed administrative officers might not be as willing to move us around.

If we must stick to conventional bookstacks some of the companies have bookstacks of contemporary design. These are flexible. They have interchangeability of all depth shelves. The book shelving can be converted to periodical shelving. These are adaptable to the use of accessory items such as carrels, lockers, microfilm shelves, record storage and many other uses.

Finding space is a critical problem in every library. If a new addition or additional shelving must be purchased we have to convince budget and space people we need a few thousand dollars. The cost is easier to justify if we can purchase equipment that is space saving and at the same time provides better organization. The oblique newspaper files do just that. I have enough folders for distribution which will illustrate these files.

Filing cabinets as we all know them, army drab green or steel gray, are not exactly eye pleasing. The Supreme Equipment and Systems Corporation makes a THINLINE CONSER-A-FILE that is attractive as well as practical. It may be fitted in with counter-height shelving. The illustration I was able to obtain looks as though it would line up (that is in distance from wall or in width) with regular shelving.

Remington Rand with its Scandinavian Library Design has a book trolley which could be useful in collections assigned to offices. The trolley consists of a book case suspended on a frame having four wheels. The book case is provided with four tilted shelves capable of housing approximately seventy volumes. The two middle shelves are adjustable, thus permitting the trolley to be used for folios, binders or the like.

In libraries frequented by the public, book theft is a major problem. Special libraries have theft to a smaller degree. If statistics have been kept that show book thefts warrant security measures one solution might be BOOK-MARK or some similiar system.

BOOK-MARK works like this -- a thin slip of energizable material is cemented in the book. The place is selected by the individual library. Before the book is placed on the shelf it is passed through the activator unit, which makes it detectable by the BOOK-MARK system. The book is shelved in the normal manner. It looks just like any other book. The book may now be circulated, using any standard charging system. The borrower brings his selection to the charge desk for charging out. When-charge-out transaction is completed, the librarian returns the book to the patron by passing it across the desk top. This automatically demagnetizes the metal plate in the book. The patron can now carry the book out of the library without danger of triggering the electronic sensors at the exit. If the patron has failed to charge out the book, the controls are set in motion to alert the charge out desk.

Few of us have enough space to allow for display of periodicals. If we do display, we tend to revert to traditional sloped shelves in bookstacks. There are other forms, for example Gaylord Periodical Displayers. These are distinctive in design, with shelving for displaying magazines. Metal shelves are bolted to vinyl laminate covered particleboard panels at an angle to allow maximum utilization of space.

Design carrels, that all of us who deal with research type work of any kind would like, come in a variety of choices. Some may be worked in corners in connection with shelving. Some may have book shelves, high sides and even book shelves on the outside. I saw a very attractive study station at the Kimbell Art Museum in Fort Worth, Texas. It seemed to be in the middle of open space but privacy is afforded by screens.

Nearly all the library furniture suppliers have card catalog cases and tables with tops of vinyl laminated tops. This type of finish does not burn, scar or hold water marks. The change of use of vinyl may be due to wood shortage and cost of wood.

Not too many of us have libraries where there is a ready center for the visually handicapped. If there is anyone who has need for such materials the Gaylord Supply Company has a MASTER-LENS that would be helpful. Some of us may have friends and relatives that could use the MASTER-LENS in their own home if they desired to purchase it. MASTER-LENS consists of a high resolution enlarging lens coupled with Ramalite, a special light source, which provides an excellent combination for continuous reading and concentrated work.

Before jumping from furniture to services I would like to mention a helpful publication. PLANNING THE SPECIAL LIBRARY by Ellis Mount. Special Libraries Association, Monography #4. Special Library Association, 1972.

To go from furniture to services there are three I would like to mention.

1. Bancroft-Whitney legal service UNITED STATES CODE SERVICE. This was purchased from Bobbs Merrill. The original title was Federal Code Annotated. It is somewhat like a combined United States Code Annotated and United States Code Congressional and Administrative News. It has two advantages over USCA. (1) It provides integral leads to the Code of Federal Regulations. (2) It uses the exact language of the Statutes at large.

The Bureau of National Affairs HOUSING AND DEVELOPMENT REPORTER gives a complete rundown on whats happening in the housing field. It has one section on the Uniform Relocation Act which has facets in several departments and agencies.

The central office library of HUD has compiled a printed dictionary catalog of its holdings. Copies of this catalog have been placed in the HUD Regional Libraries. It was published by G. K. Hall, 70 Lincoln Street, Boston, Massachusetts 02111. The price is $1,425. This printed catalog is an excellent aid to cataloging planning materials. HUD library uses the UDC classification system but the printed catalog is good for entry and subject headings. It is excellent to find what exists on certain subjects. The 701 Planning Reports are located in the final volumes of the catalog. Those of us who have questions from cities find this useful. This Volume 19 is available separately for $70.

PAINLESS PRUNING OF THE BOOK COLLECTION - A TAG GAME FOR ALL

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Abstract: In weeding the book collection at the NOAA-ERL Library in Boulder, Colorado - a task which had never been attempted in the library's 15-year history - criteria were established upon which to base decision to retain or discard. We devised a form which gave each book 100 points at the start; we then subtracted from 100 the number of points tallied against the book. Points were based on imprint date, circulation record, and other factors. If a book scored 75, i.e., lost 25 of its points, it was considered BORDERLINE. If it scored under 70, WITHDRAWAL was recommended. Students hired for the project pasted in tags and made first evaluation; librarians and others reviewed the decisions. Suggested discard lists were then typed and circulated among scientific staff for further recommendations. Project resulted in estimated withdrawal from shelves of 7-8 per cent of monograph holdings.

Librarians are by nature savers. We all find the idea of putting a new book on the shelf much more attractive than taking an old one off. If anyone in this mobile generation has been around long enough to remember buying or cataloging a certain book originally, the withdrawing of it ALREADY gives one an uneasy sensation of (1) the passage of time, and (2) why did we choose wrongly on this one?

To weed effectively, one can't be easily upset by such reflections. Nor can he allow unhappy second thoughts once the deed is done. Usually the public doesn't come demanding, "Take me to your weeder," appropos of some too-hastily discarded book, but there are some audible dissenters nonetheless. Nobody - user or library staff - wants to pitch out books. As Ralph Ellsworth says in his Economics of Book Storage,[1] "Traditionally colleges and universities have been proud of the number of books they could acquire in their libraries...The most prestigious colleges and universities have had the largest collection of books, and all institutions have competed vigorously to acquire as many as they could...but the old order changes."

As we all learn sooner or later, there's not enough room to keep it all. and we wade in, determined to make room somehow, somewhere. All the obvious things have been done: duplicate copies, double-ups between books, reports and journals pitched, withdrawn, discarded - whatever your euphemism for get rid of it. The top-of-stacks desperation move, remote storage for some hopefully less-used books and journals have been tried. And stil there's no space left.

The Tag System - Developing a Screening Mechanism.

At the NOAA-ERL Library in Boulder, Colorado, in the winter of 1970 we decided we could wait no longer. We had to make some room. The question looming before us was how to reduce the quantity without effecting the quality. And how not to have the word spread far and wide through the Boulder Laboratories that the library was getting rid of good books, or some such version. In its 15-year history, the library had never before attempted such an ambitious weeding project. Should we enlist the aid of users, in our case the scientific-technical personnel? Would they consider this an imposition or a task worth their time? What criteria were we going to use? How would we advertise/circulate the books withdrawn?

EVALUATION TAG FOR MONOGRAPHS

AUTOMATIC EXCLUSIONS	DECISION SCALE
_____In library less than 3 years _____Archival _____Series (No other checks needed for the above)	80 and above, retain. 70-75, borderline, reexamine. Below 70, recommend discard. KEY: R - Retain B - Borderline D - Discard

FACTORS CONSIDERED	1st	2nd	3rd	MAX PTS.
Evaluator (Initials)				
Date checked (month,year)				
Imprint 5 years old or less - 0 6-10 years old -10 over 10 years old -15				15
Circulation rate poor 0 times -20 1-3 times -10 4-7 times - 5 8 or more times - 0				20
IF CIRCULATED APPLY FACTORS BELOW Less than 5 years - 0 5-10 years ago - 5 Over 10 years ago -10				10
Owned by local library or project (See SL)				10
Easily replaceable, in print (See BIP)				10
Physical condition poor				5
Later edition in inventory (See SL)				20
Duplicate copy (s)				10
TOTAL POINTS AGAINST:				100
FINAL SCORE:				
DECISION:				

COMMENTS:

FIGURE 1.

The criteria had to come first. Figure 1, the Evaluation Tag for Monographs, pretty much tells the story, but it wasn't an easy form to design. As you can see, we determined that each book would start out with a total of 100 points. From this 100, a number of points would be subtracted - points based on such factors as IMPRINT, CIRCULATION RATE, LATER EDITION, DUPLICATE COPY, etc. Therefore, the assumption was that a book was perfect (100%) unless we could find sufficient evidence against it to strike it - 31 points being the fatal blow.

We found ourselves engaged in some long round-table sessions (incidentally our staff-meeting table IS round) on the relative merits of this or that factor. In practice, once we finally moved to the phase of agreement on the form, almost always a book was kept or pitched on the basis of (1) imprint date, (2) circulation - how much and how recent - and (3) later edition. Most of the other points were sometimes used, but generally these three were the vital ones.

There may be arguments that CIRCULATION/AGE is not a valid criteria, that content is better. True. But if a library has bought wisely, then anything in it should have some "redeeming value" and if you start from there, then those books that are not used should be the most susceptible to being withdrawn. A NEW EDITION on hand did not necessarily preclude retention of an older edition; if the old one continued to circulate we kept it.

OWNED BY LOCAL LIBRARY OR PROJECT was sticky, since many books bought by projects, offices, etc. within the Boulder Laboratories were duplicated by the library. In earlier days we had cataloged such books, thus we knew by consulting the shelf list that there was another copy in the Boulder Laboratories. Whether this was a plus or minus for retaining we weren't sure; in another go-around we might leave this one out. The same factor applies to availability at local libraries. We did not make a catalog check of the holdings of the University of Colorado, our nearest neighbor, but we would often surmise that CU must have this or that book. Or perhaps the National Center for Atmospheric Research, another neighbor with whom we have good borrowing-lending relations, could supply a copy. In all cases, we were much more careful about recommending withdrawal of anything in our primary areas where we felt that we were the holders of the majority of works in the Boulder-Denver area, in such subjects as radio, antennas, ionospheric research, cryogenics, etc.

Scoring and Marking.

With slip created, the next step was to tape it into the front of the book, score it, and affix a red or yellow dot to the spine. Red meant below 70 - DISCARD; yellow, 70-79, or BORDERLINE. Anything scoring 80 or above had no tape, indicating RETAIN. A white tape was also used for serial holdings to be evaluated separately. Incidentally, trying to obtain dots, spots, tapes or markings which would stay on the spine for several months without additional glue was a problem - we never did find a reliable marking device, and finally stuck the colored dots on with Magic Mend (Elmer's glue would also work).

We were able to hire several former University of Colorado students on an hourly basis for the four to five months that it took to evaluate our books, exempting the serials and reference collection. At that time, we possessed about 20,000 books and we estimated that it took roughly 2000 man hours to inspect and score them. If a book was circulating, this was evidence that it should be kept; we called in no books for scoring. The temporary employees did a fine job, usually working in teams of two.

Review.

The next step was a review by seven librarians and one high-level technician. We were individually assigned various chunks of the collection to review, shelf-list in hand if possible. We checked the scoring, contemplated the book, and applied our knowledge of the field. Was it a classic? Did it cease to move after a later edition arrived, or was it still valuable? Did it fall into one of our major strong areas such as radio wave propagation or atmospheric turbulence? We even looked at who checked it out - was it one of our great, gray scientists or a graduate student using it for a text? Incidentally, an automated circulation system usually does not allow for the type of detailed record contained in the book; one must depend on the machine to provide a print-out of circulation statistics. Possibly a system could be designed to tabulate "who" as well as "when" and "how often." It does seem that the old charge-card method has an advantage in hand-weeding.

The staff members agreed or disagreed with the first rating. In some areas, we were able to ask certain people whom we considered authorities in their areas to inspect the books on-shelf and identify classics or otherwise valuable books that should be kept, regardless of lack of circulation or age. Some people had time to do it and considered it worth their time. Most users whom we felt we could ask - and you can all identify your heavy library users and booksmen - were cooperative and concerned. Thus we secured a third opinion in many instances. Ideally, it would have been helpful if we could have grabbed an authority in all areas.

List # 1 Date April 1970

Item #	Call #	Author, Title, Date, and Holdings	Preliminary Recommendations	*Your Recommendations	Comments
247.	TK3141.S35	Schure, Alexander. A-C CIRCUIT ANALYSIS. 1958.	W		
248.	TK3226.A72	Asami, Y. SOME DEVELOPMENTS IN NETWORK THEORY. 1960.	B		
249.	TK3226.B75 1955cop.1	Brooklyn Polytechnic Institute. Microwave Research Institute. PROCEEDINGS OF THE SYMPOSIUM ON MODERN NETWORK SYSTHESIS. 1955	W		
250.	TK3226.D3	Dennis, J.B. MATHEMATICAL PROGRAMMING AND ELECTRICAL NETWORKS.1959	B		
251.	TK3226.G3 v.1 cop.2	Gardner, M.F. TRANSIENTS IN LINEAR SYSTEMS STUDIED BY THE LAPLACE TRANSFORMATION. 1942.	W		
252.	TK3226.G7 cop.1	Green, Ernest. AMPLITUDE-FREQUENCY CHARACTERISTICS OF LADDER NETWORKS. 1954.	B		
253.	TK3226.G83	Guillemin, E.A. COMMUNICATIONS NETWORKS. 1931. Vols 1 & 2, copy8	W		
254.	TK3226.G84 cop.4	Guillemin, Ernest Adolph. SYNTHESIS OF PASSIVE NETWORKS. 1957.	W		
255.	TK3226.H32	Hayashi, Shigenori. SURGES ON TRANSMISSION SYSTEMS. 1955.	W		
256.	TK3226.H78	Hurley, R.B. TRANSISTOR LOGIC CIRCUITS. 1961. Copy 5.	W		
257.	TK3226.P8 cop.2	Pullen, K.A. THEORY AND APPLICATION OF TOPOLOGICAL AND MATRIX METHODS. 1962.	B		
258.	TK3226.T5	Thomason, J.G. LINEAR FEEDBACK ANALYSIS. 1955.	B		
259.	TK3226.K25	Kammerloher, Josef. HOCHFREQUENZTECHNIK, I. 1957.	W		
260.	TK3226.T85	Tuttle, D.F. NETWORK SYNTHESIS. 1958. Vol.1. Copy 7.	W		
261.	TK3226.V65	Von Tersch, L.W. RECURRENT ELECTRICAL TRANSIENTS. 1953.	W		
262.	TK3226.W25	Wagner, C.F. SYMMETRICAL COMPONENTS. 1933.	W		
263.	TK3226.W26	Wagner, T.C.G. ANALYTICAL TRANSIENTS. 1959.	B		
264.	TK3226.W6	Wunsch, Gerhard. MODERNE SYSTEMTHEORIE EINE EINFUHRUNG IN DIE GRUNDLAGEN. 1962.	W		
265.	TK3226.Y27	Yavarone, K.F. INTRODUCTION TO TRANSMISSION NETWORKS, THEORY AND PRACTICE. 1954.	B		
266.	TK3351.F73 cop.2	Fried, Harvey. SIMPLIFIED THEORY AND APPLICATIONS OF DELAY LINES. 1962.	W		
267.	TK3401.J3	Jackson, Willis, ed. THE INSULATION OF ELECTRICAL EQUIPMENT. 1954.	W		
268.	TK3421.A53 1956	American Society for Testing Materials. SYMPOSIUM ON MINIMUM PROPERTY VALUES OF ELECTRICAL INSULATING MATERIALS. 1957.	W		
269.	TK3421.T4	Teddington, Eng. National Physical Laboratory. THE PROPERTIES OF ELECTRICAL INSULATING MATERIALS AND METHODS OF TEST. 1952.	B		
270.	TK4381.F7 cop.2	Francis, V.L. FUNDAMENTALS OF DISCHARGE TUBE CIRCUITS. 1948.	B		
271.	TK4391.G5 cop.2	General Electric Co. GENERAL ELECTRIC GLOW LAMP MANUAL. 1963.	B		
272.	TK5101.B35 cop.2	Belevitch, Vitold. THEORIE DES CIRCUITS DE TELECOMMUNICATIONS. 1957.	W		

Listing and Withdrawing.

This was not the end of the evaluation. We earmarked one of our temporary employees to start typing surplus lists as soon as sections of books had received their final check-over by staff members. Figure 2 is a reproduced page from one of these lists. Mechanics of this procedure weren't too bad. A truck of red- or yellow-spotted books was pulled, lists were typed a truck at a time, and books reshelved quickly. The books were itemized by number, then columns set up for Call Number, and Author-Title-Date-Holdings. Beyond this, three columns were established: Preliminary Recommendations (our own suggestions to withdraw or question as borderline), Your Recommendation, and Comments.

The lists were then circulated in Boulder among our own scientific-technical personnel. The results were gratifying, at least for the first lists. (We produced seven in all and interest began to flag by the time the last lists came out.) As a book was requested, providing majority favored discard, we pulled it off the shelf and assigned it to a project on a first-come first-served basis. This was our first big step in moving the books off our shelves and onto somebody else's where, hopefully, they would be more frequently used.

The surplus lists contained valuable comments on the books. If the book was kept, these remarks were transcribed into the tag. In those BORDERLINE areas where opinion was evenly divided, we kept the book, figuring it was better to err on the keep-it side. Those books were marked retain, yellow tags removed, and they have remained on the shelf for the next go-around, probably due sometime in the coming year. It will be interesting to see whether these books have circulated enough to justify their retention for three or four more years. Incidentally, you will note on the tag, space for three evaluations, providing a somewhat permanent record of decision-making on any specific book. This tag is also useful for noting other information concerning the value of a book; it has probably alerted some users that the library would like to know that they consider this a "worthless" or an "excellent" book.

After final decisions were made, and requested books reassigned to projects, we pulled the remaining DISCARD books from the stacks and shelved them in our workroom. We then ran notices in our Boulder Laboratories Weekly Bulletin, inviting people to come in and select for their projects. These notices reached many people that the typed lists did not, and the quantity was further reduced. Next, and by then probably a year had elapsed, we created some other surplus lists containing what we considered to be the best of the remaining books. We circularized these to faraway laboratories and field sites of the NOAA-NBS-OT system, and disposed of nearly 100 books this way. Finally, we surplused the remaining hard-core discards through normal channels.

And how about the catalog records? Again with specially hired temporary help, we withdrew the hard-core books taken out of the system; we also pulled charge cards immediately on the books transferred to projects, and eventually worked these off through the catalog. Our final count was about 1500 books withdrawn out of 2900 marked as DISCARD or BORDERLINE. Those 1500 represent roughly a year's acquisition in books for our library - we gained space for one more year.

Justification and Public Relations.

In terms of man hours, the tag game was fantastic, and you well might ask whether it was worth all the effort put into it, from the temporary help, through the library staff, to the scientists who screened the books and the technicians who completed the final pulling of books, mail-outs and purging of records. We think such a project IS worth doing, if not precisely the way we did it, at least in some organized, weighted way in terms of (1) trying not to throw away anything good inadvertently (Isuppose we did but we haven't learned of anything tragic) and (2) the public relations aspect.

We decided early in the game to enlist the aid of the scientific-technical sector. We did not want to be known as the librarians who threw away the library. At that time we had a lady working for us who could be relied upon to say, upon discussion of whether or not to weed in almost any category, "But just last week Dr. Eminent was looking for that very thing." (Have you heard this one before?) We think the project assured us that Dr. Eminent was not looking for those thrown-away books. We had just one serious complaint from an unhappy scientist; apparently we mollified him by suggesting that he come down and actively help to make the selections for discard, which he was too busy to do. This is apparently something of a pattern, judging from experiences of other libraries.

But the problem remains - should a library publicize the effort or just quietly steal the books away? It depends on the diplomacy with which you do it, I suspect, and the caliber of your users. There will always be some who want you to save everything (I've seen some of their offices), and others who say "Get rid of it, who needs it?" We suggest you try to defuze the potential malcontents and enlist them to your side. But if you can't, you may have to justify your selections, and the little tag is an excellent way to do it.

Reference Collection, Serials, and Technical Reports.

There was additional follow-up to the tag-game. The reference collection needed a look and the serials had to be identified and checked. Some of both were also withdrawn, but under a different procedure which I will mention briefly.

The acquisitions-cataloging area is a very good place to identify and pull out-of-date reference books; probably many of you do this routinely. Providing you don't pull the World Almanac or World of Learning three weeks before the new one comes out to the shelf, most public services librarians will agree to this sort of systematic, on-going weeding. We keep a few reference books in older editions - Consumer Reports five years, Hotel-Motel Red Book two years, etc. - but most go out as the new one comes in. This is a practice, incidentally, that hadn't been in effect when I first came to the NOAA-ERL Library, probably because space hadn't become that critical. Another weeding procedure, done through the serials records, is to circularize among librarians, periodically, selected lists of serials which don't seem to have moved. These are identified by acquisitions personnel, evaluated by all librarians, and perhaps the series is discarded, or subscription not renewed. Both this, and the tag system are procedures which could work in any library, regardless of size. Time and manpower are the chief drawbacks, but even a little of both, applied systematically, can make inroads.

With technical reports, we are substituting microfilm for most hard copies after a certain number of years, and don't anticipate the buildup that we have in books. There isn't time to delve into weeding of periodicals other than to suggest that auxiliary storage, microfilm, constant pruning of subscriptions are partial answers; being aware of holdings of other libraries in your area is another - perhaps you don't need that journal if somebody two or twenty miles away has it.

Conclusion.

Even with all these weeding practices, a library will grow; the adds always seem to exceed the subtracts. Weeding is one response, not the answer. It reminds one of the old time radio drama on "Lights Out" called "Chicken Heart," - no matter how they attacked it, it kept on growing BECAUSE THEY LET IT GET A HEAD START. Is your library turning into a chicken heart? Do you have the weedership to stop it? Just think - while you are sitting here, your library has been growing, growing, growing, and I can see you just can't wait to get back and start weeding - now can you?

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1. Ellsworth, Ralph. Economics of Book Storage, Metuchen, NJ, Association of Research Libraries and Scarecrow Press, 1969, page 25.

ORGANIZATION OF GOVERNMENT DOCUMENTS: SOME SOLUTIONS

Doreen Buck Tilton
Library Regional Liaison
U.S. Department of Housing and Urban Development Library
Washington, D.C.

In 1789, The First Congress made provision for printing the laws, journals, and other documents of the new government. In 1861, the Government Printing Office was established to provide a single source for the production of these documents. The Office of the Superintendent of Documents was created in 1895 to provide centralized distribution. During the first year, $889 worth of publications were sold; less than ninety years later, in 1972, the annual sales were more than twenty-three million dollars.

It is difficult to imagine that a collection of documents that didn't even exist one hundred years ago could grow to such proportions and create such an impact. Government documents certainly are among the most useful and valuable material in any library. Librarians who learn to obtain, organize, and utilize this body of material are well rewarded for their efforts. This knowledge is particularly vital to Federal librarians since these documents are their stock-in-trade.

However, every blessing has its curse, and government documents are no exception. To quote Norman Clarke, the acquisition, cataloging, classification, and storage of government publications in libraries has been "a source of conflicting opinions, diverse practices and genuine bewilderment for a longer time than any of us can remember." Even the definition of the term "government publication" has been a matter of considerable argument, chiefly because the definition determines whether or not a particular document is distributed to a depository library. The definition formulated in the Printing Act of 1895 is "any publication printed at government expense or published by authority of Congress or any government publishing office." By 1962, with the increase in reproduction methods other than printing, the definition had become "informational matter which is published as an individual document at government expense, or as required by law."

The latter definition is also disputed by many librarians. For example, what becomes of that large body of material known as Federally sponsored reports? These reports, produced by private consultants and partially or totally funded by government agencies, contain much valuable information on a variety of topics. An effort has been made to deposit these reports at the National Technical Information Service in Springfield, Virginia. In many instances, however, the reports are not even deposited with the library of the Federal agency funding the study!

It is not possible at this session to discuss all the problems related to what one librarian so aptly termed the "G.D." explosion. Hopefully, the preceding remarks provide a background as well as an introduction to our primary topic - the organization of government documents. The conflicting opinions, diverse practices, and bewilderment found in all government document problem areas are more than amply illustrated in a survey of document organization practices.

Should the documents be integrated into the main collection or should a separate documents collection be established? Should the documents receive full cataloging and classification or should some abbreviated system be used? Should the documents catalog be a part of or separate from the main catalog? Often, the response to these questions is "none of the above", and a combination of the aforementioned elements is used to create an effective documents organization.

A review of the available literature for the last ten years discloses a multitude of solutions to the documents problem. Following are a few examples of the variety of solutions developed. They are numbered merely for identification purposes, not in order of importance, popularity or use.

Solution #1 employs full cataloging and classification with liberal use of subject headings, added entries, and cross references. The documents are "Cuttered" by subject, with the exception of government documents in the Reference collection. These receive the library's standard classification. A separate documents catalog is maintained for the public.

A second approach uses brief, centralized descriptive cataloging for all government monographs classified by a special scheme developed in-house. This library system lists its government documents in both the general card catalog and a separate documents catalog.

A third method catalogs under the author only, relying on the Monthly Catalog of Government Documents and other printed guides for subject approach. These guides are augmented by an internal "quick reference" file. Library of Congress classification is used, and a separate documents catalog is maintained.

Perhaps the most controversial solution to the organization of government documents is the Government Printing Office or

Superintendent of Documents classification system. Many articles have been written debating the pros and cons of this system. The chief advantages and disadvantages usually presented are:

ADVANTAGES:

(1) It is a ready-made, specialized documents classification system.

(2) Classification numbers appear in the Monthly Catalog, Superintendent of Documents price lists, and on depository shipping lists so the documents can be classified quickly.

(3) The Monthly Catalog can be used as a subject index to the documents.

(4) The classification scheme keeps documents from the same agency and series together on the shelf.

DISADVANTAGES

(1) Changes in classification occur with governmental reorganizations that shift bureaus and functions from one Department to another.

(2) Classification of non-depository publications may be delayed pending receipt of the Monthly Catalog.

(3) Neither the Monthly Catalog nor any other source lists all government publications with Superintendent of Documents classification numbers.

(4) The use of a special classification scheme for government documents separates them from other publications on the same topic, requiring the user to consult an additional card catalog and collection for similar information.

A survey of libraries conducted several years ago found that smaller libraries tend to handle government documents like any other material - monographs are cataloged for the book collection, periodicals put in the serials collection, and pamphlet-sized documents kept in a subject or classified vertical file. In some cases, certain types of material such as Congressional reports and hearings or agency reports are kept in separate files. According to this survey, as documents collections grow they are more likely to be given separate processing using one of the methods above.

This tendency is not reflected in Federal research libraries. Many major government libraries including HUD, Interior, and Commerce give government documents full cataloging and classification and integrate them into the general collection. Some do separate Congressional documents, classified materials, and the like. However, Congressional reports and hearings are usually filed in the library's legal section, and their catalog entries are filed in the main card catalog.

As is evident from this brief review, almost every library has found a way to organize government documents. Unfortunately, no two ways are alike, or so it seems. The absence of any recognized code that can be applied uniformly to government documents is an acknowledged fact. The common explanation for this lack of standardization is "too many variables". Each library has to consider a variety of factors before selecting the arrangement and classification suited to its needs: the volume of material, staff size, financial resources, type of library and its size, and most importantly, the requirements of the users.

In the final analysis, we might be guided by the words of Andrew Osborn: "It is wise to aim at a compromise between elaborate treatment and comparative neglect, which seem to go hand in hand in so many libraries, where a minor periodical or annual report is cataloged in detail, but a major government publication is neither cataloged nor classified...".

As Isabel Jackson stated in 1951: "All that we can do then while we await the millennium and the document that arrives complete with catalog card, is to apply equal parts of common sense and enthusiasm to the documents under our care. Common sense applied to housekeeping and enthusiasm used in exploiting our much maligned stock in trade may bring the millennium sooner than we think".

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10. Simmons, Robert M. "Handling Changes in Superintendent of Documents Classification," *Library Resources and Technical Services*, Vol. 15, no. 2 (Spring 1971), 241-244.

DEVELOPMENT OF AN ACQUISITIONS POLICY FOR THE SMALL LIBRARY

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This paper describes the methods used in developing an acquisitions policy for a new library in a new federal agency. Beginning with a "one librarian" operation dealing with a large inherited collection of uncatalogued and unsorted materials and without any previous ordering records, the author suggests how procedures for receiving, placing and maintaining acquisition orders can be standardized. Detailed description of ways in which agency staff members can be utilized as an aid to establishing an acquisitions policy is outlined. How to create ordered chaos out of disordered chaos might well be a second title.

Before I explain how I arrived at my acquisitions policy, I would like to give you a short history of our library so that you will have a better understanding of how and why my acquisitions policy developed as it did.

The Environmental Protection Agency library system is composed of ten regional libraries plus approximately twenty five smaller libraries attached to various laboratories. My library is in Region X and serves the regional office staff of about 250 people as well as laboratory and field staff in the four States of Alaska, Idaho, Oregon and Washington.

When I was hired in the fall of 1971, our Region X library consisted merely of a few lines on an architect's blue prints. While waiting for the library to be completed I made appointments with the heads of the different divisions in our organization in order to familiarize myself with the general goals of the agency in terms of needed library service. At the same time I contacted the Special Libraries chapter in our city and visited a number of Special Libraries. From these visits I developed a list of specialized materials that would be quickly available on an interlibrary loan basis. During this interim period, I also sent off letters to publishers requesting to be placed on their mailing lists. One month later the library was ready and I was moved in with my "collection" of four hundred and twenty seven boxes. These boxes held an incredible jumble of periodicals, reports and hard bound copy, all uncatalogued and unsorted. This material had been moved up from the old Federal Water Pollution Control Administration in Oregon and was therefore heavily weighted toward the subject of water pollution.

I was immediately faced with two basic acquisition problems: 1) how to begin to add to the collection when it would take a great deal of time to determine what was in the original collection, and 2) how to quickly expand the subject matter of the collection to meet the needs of a staff working with diversified subjects and not solely water pollution problems. Secondary problems were: a budget of $2,000, a total lack of basic references such as atlases and dictionaries, no acquisition tools for the librarian, no previous records of past orders and a "staff" of one to solve all of these problems.

The first thing I did was to sort out all periodicals, put them in order and list them by title. This list was then sent to all members of the staff asking them to check all periodicals they felt should be renewed and asking them for suggestions for new titles. Ordering priorities for the periodicals were established according to the number of checks each title received. The new journal titles have been added as money has become available. This periodical evaluation procedure will be continued on a yearly basis.

The next step was to ask the Regional Administrator to appoint a Library Committee made up of staff members from various divisions in the agency. I met with this Committee several times in order to determine a plan for acquiring needed reference works. Top priority was given to the following: Business Directories, College and Travel Information, Atlases and Dictionaries, Handbooks, State Manuals, Abstracts and Bibliographies, and acquisition tools such as Books In Print, Ayer's Directory of Publications and Ulrich's International Periodicals Directory. I met separately with representatives of the Enforcement Division and together we developed a two-year acquisitions plan for our Environmental Law collection.

Two workshops were held for the secretarial staff during which I explained the services of the library and asked for their suggestions for materials that they would find helpful in their work. They requested Airline Guides, Thesaurus' Synonym & Acronym Dictionaries and Secretarial Handbooks. Although most of these people do not have scientific backgrounds, they were very interested in learning more about various aspects of the agency's work and have asked me to acquire materials on the layman's level. I am therefore developing a "Special Reading Shelf" of non-technical environmental books that is being heavily used by our clerical personnel.

The first six months our acquisitions policy was really a reaction rather than an action policy due to my minimal budget and to the lack of previous ordering records. When I discovered that many of our acquisitions requests were being received via the telephone or scribbled on slips of paper that were dropped on my desk, I devised an order form that was filled out and filed by date. The order forms have spaces for pertinent information such as author, title and publisher as well as a space for the requestor's name and the date requested. This system made it possible to place the orders on a monthly basis rather than attempting to react to each individual order as it came in. When materials requested for individuals are received they are not retained in the library but are catalogued and marked as being on permanent loan. This system is a means of avoiding duplication of orders while satisfying the patron who needs materials at his desk for ready reference.

At the beginning of our second year of operation our Headquarters Librarian negotiated contracts with two commercial agents, one for books and one for periodicals. I opted to take advantage of these contracts and they have proven to be highly satisfactory. I now do 90% of my ordering of hardbound copy and periodicals through these two services. This means that I can type up two procurement requests a month rather than the thirty to fifty individual requests that were necessary before the use of the contracts. Not only does this save a great deal of time but it also makes keeping track of orders much simpler. On my copy of the procurement request I write the name of the person for whom the material was ordered thus eliminating the need for keeping the order request forms once the orders have been placed. I have also established accounts with the Superintendent of Documents and N.T.I.S. The NTIS "Weekly Government Abstracts" are routed to key members of the staff as an additional means of keeping up with acquisition needs.

Since we are only allowed to order on a one-year basis, I have set up an ordering deadline file for all subscription orders. This file is arranged by the month and serves as a reminder of subscription orders that need yearly renewals.

After working with this procedure for awhile I found that I was spending a great deal of time on "ordering day" sorting out the order request forms to comply with our various accounts. As soon as all of our accounts were established I set up a master file marked "Orders To Be Placed" with a file folder for each account plus one for "Letter Requests" and one for "Miscellaneous Requests." The order forms can now easily be filed under the proper ordering account as they are received.

A second librarian was hired the first of this year and one of her first assignments was to conduct interviews with each member of the staff. The results of these interviews have been compiled on 3x5 cards under various subject headings with [illegible] names of each individual concerned with a particular subject listed on that card. This has proven to be an invaluable acquisitions tool and has had the side benefit of stimulating interest in materials already in the library. Several members of our staff have voluntarily continued to supply us with updated information for this file.

Our EPA library system has recently developed capabilities for computerized literature searches. I find that requests for literature searches often give us a clue to contemporary acquisition needs. When we spot a literature search request that seems to be dealing with a subject that is not covered in the library, we contact the requestor and discuss the need for acquiring new materials in the requested subject area.

Now that I have records for a complete fiscal year, I have set up a budget of approximately $18,000 (this includes supplies and administrative travel). Within this budget $1,000 is allocated for books, $5,000 for periodicals, $350 for NTIS, $200 for Superintendent of Documents, $100 for inter-library xerox service, $100 for an account with a local bookstore and $200 for miscellaneous reports not available through special services. Hopefully, by the end of FY 74 records will prove that this budget is adequate to cover both completion of our basic reference orders and expansion of our acquisitions needs.

In summary, I would like to suggest that one of the basic prerequisites for developing an acquisitions policy for a small library is to establish what does not need to be acquired. This can be done by setting up an informal network in one's own geographical area of special library collections that are available on loan. The second requirement is to attempt to insure that all materials acquired are contemporary and relevant. This can be accomplished by continuing contact with staff members through questionnaires, workshops and individual interviews for an important part of the librarian's acquisitions job is to keep informed on the agency's current activities. Don't discount informal "discussions" in the hallway or over coffee. The procedures for obtaining and processing acquisition orders that I have described in this paper are simply methods devised by one librarian to implement the attainment of these two basic goals.

AGENCY DAY PROGRAMS

Agency Day, September 27, 1973

Department of Agriculture
National Agricultural Library

* 8:30 a.m.	Open the meeting	Dr. Caponio
8:45	CAIN On-Line	Mr. Crawford
10:00	Information Activities in the Forest Service	
11:00	Coffee Break	
11:15	Serial Project and Its Potential	Mr. Weiss
12:00	Lunch	
* 2:00 p.m.	Bibliographic Feeder System	Mr. Olsen
2:20	Document Delivery	Ms. Allen and Mr. Olsen
3:00	Discussion and question period with NAL panel	

* Morning sessions open to all Workshop attendees; afternoon sessions open to USDA employees only.

Agency Day, September 27, 1973

Department of the Interior

9:00-10:00 a.m.	Panel: Headquarters/field library functions Mary Huffer: Headquarters status and goals (USDI Library) Eleanor Abshire: View of a small-sized field library (Mines) Sandy Hamilton: View of a medium-sized field library (Fish and Wildl.) Paul Mulloney: View of a large-sized field library (Reclamation)
0:00-10:30 a.m.	Coffee and Discussion
0:30-11:30 a.m.	Upward mobility: What is it? And what is your responsibility? Civil Service Commission (to be announced) Jim Hansen, Personnel Officer, U.S. Geological Survey Marji Pitts, Office of Library Services, U.S. Department of Interior
1:30-1:00 p.m.	Lunch
1:00-2:30 p.m.	Environmental Impact Statements; Librarians, can you help? A forum for discussion John E. Raybourn (Chairman), Staff Assistant to the Secretary, U.S. Department of the Interior, Missouri River Basin Region Bob Stewart, Bureau of Outdoor Recreation Bill Pulford, Bureau of Land Management Dick Strait, National Park Service Bill Sweeney, Bureau of Sport Fisheries and Wildlife Dick Eggen, Bureau of Reclamation
2:30-3:00 p.m.	Coffee
3:00-4:00 p.m.	Union List of Serials, USDI, a status report Sue Vita, Serials Department, Office of Library Services, USDI

*Bureau of Indian Affairs may have a separate afternoon program

Agency Day, September 27, 1973

Corps of Engineers

8:30 to 9:30 a.m.	Acquisitions, Marie Spivey, WES
9:30 to 10:00	Coffee break
10:00 to 11:00	Cataloging and Classification, Martha Blake, CERL
11:00 to 12:00	Cataloging of Reports, Marie Spivey, WES
12:00 to 1:30 p.m.	Lunch
1:30 to 2:00	Interlibrary Loans, Myra Craig, Tulsa
2:00 to 2:30	Coffee break
2:30 to 3:30	Accountability, Bennie Maddox, CERC; Pat Perry, Seattle, on AR 735-17
3:30 to 4:30	Reference, John Szczepanski, BERH: Penny Crumpler, OCE.

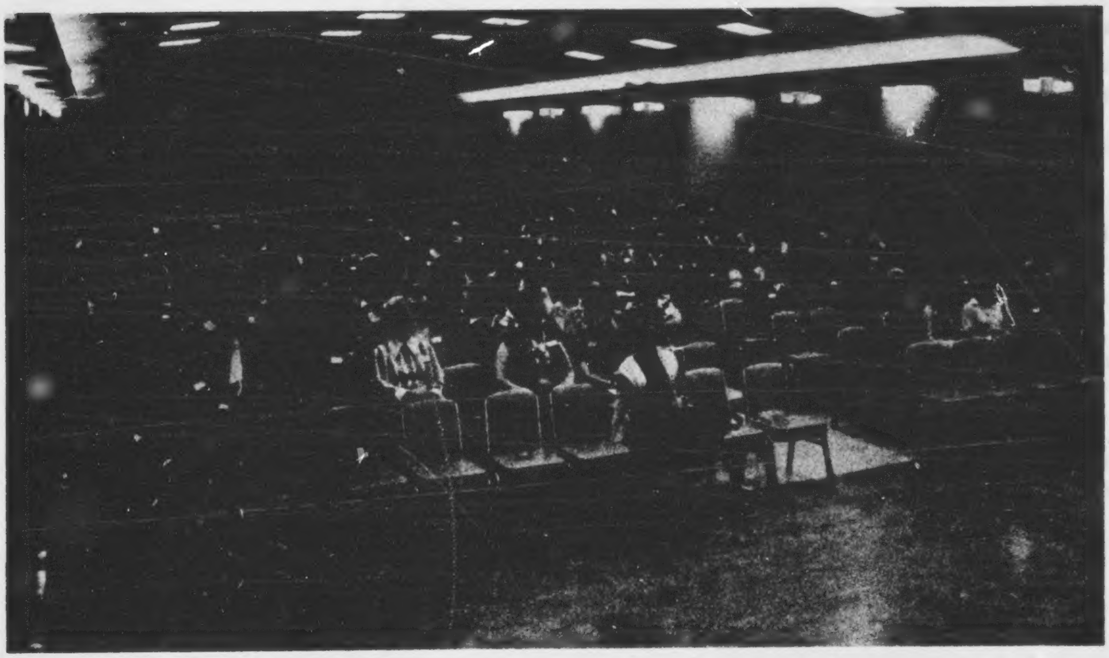
Agency Day, September 27, 1973

Department of Housing
and Urban Development

8:00 to 8:15 a.m.	Workshop call to order, Chairman
	Welcome - ARA for Administration, Denver Region, Mr. Ernie Poore
8:15 to 9:45 a.m.	Brief summary of each field library operation, By each library representative present
9:45 to 10:00 a.m.	Coffee
10:00 to 10:45 a.m.	Information from Central Office, Ms. Doreen (Buck) Tilton, Library Regional Liaison
	Followed by discussion period
10:45 to 11:30 a.m.	Intra-Library Cooperation, Mr. Patrick Leggett
	Followed by tour of the Department of Housing and Urban Development Region VIII Library
11:30 to 1:00 p.m.	Lunch
1:00 to 4:30 p.m.	General discussion period - Topics for discussion recommended by Department of Housing and Urban Development field librarians

VISUAL RECOLLECTIONS

Registration

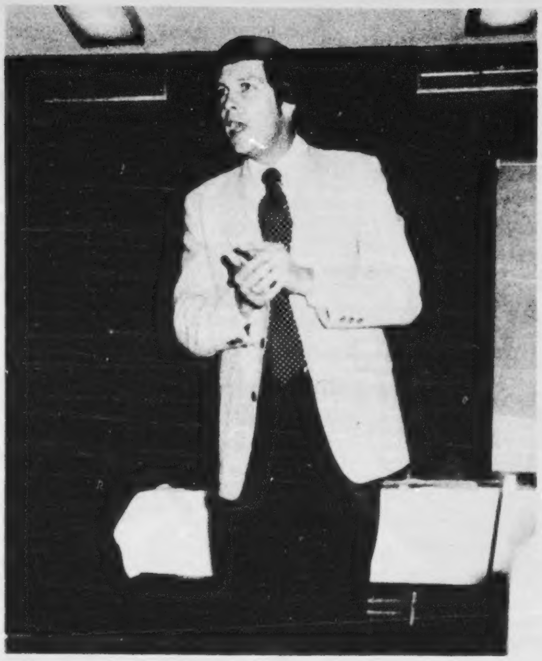


General Session

Long Range Planning Committee
Margrett Zenich, Stan Bougas, Ruth Gilbert, Ray Reese
Debby Eaton, Doreen Tilton (representing Elsa Freeman)
Mary Huffer, Yvonne Rhodes

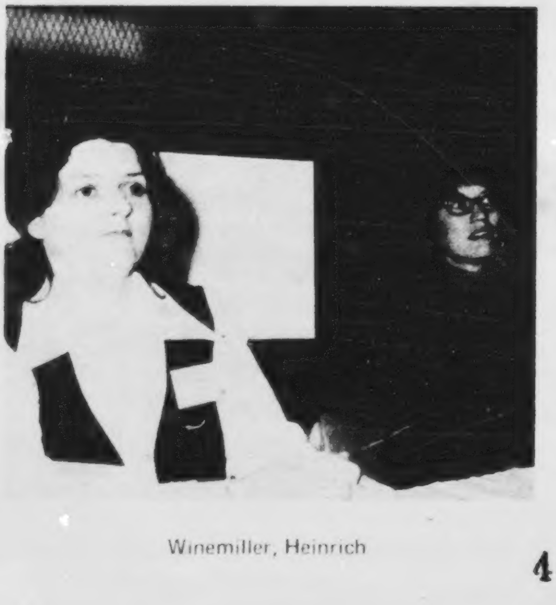
General Reception

Audience – Translations panel

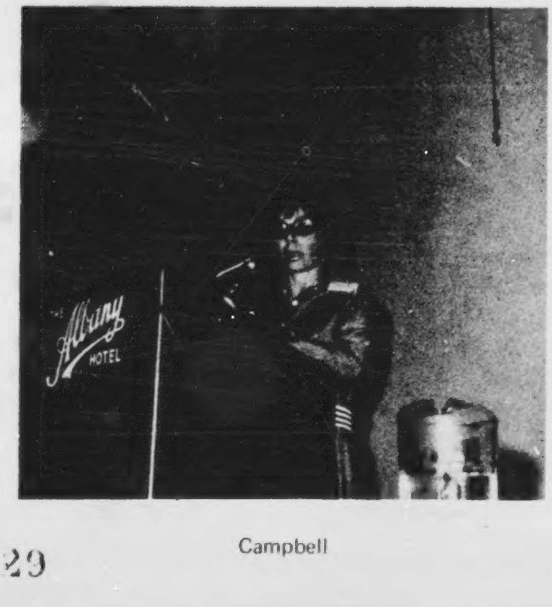


Nachman

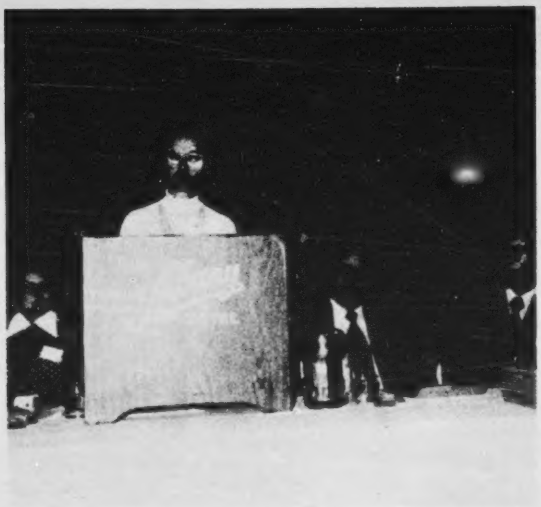
Mallow



Winemiller, Heinrich


Albany
HOTEL

Campbell



Talbot, Godfrey, Whitby, Erb

THE
Albany
HOTEL

Paliani, Bougas, Quinlan, Mulloney

Murphy

Swim

Dowd, Schnick, Tilton

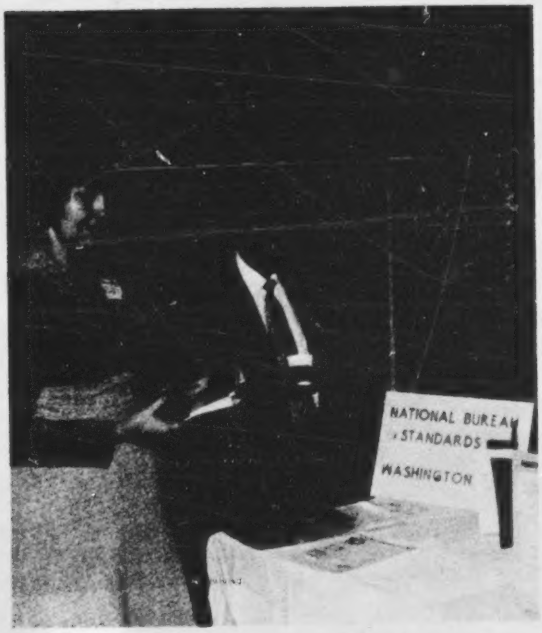
Eaton, McCormick

Allen, Bivans, Multer

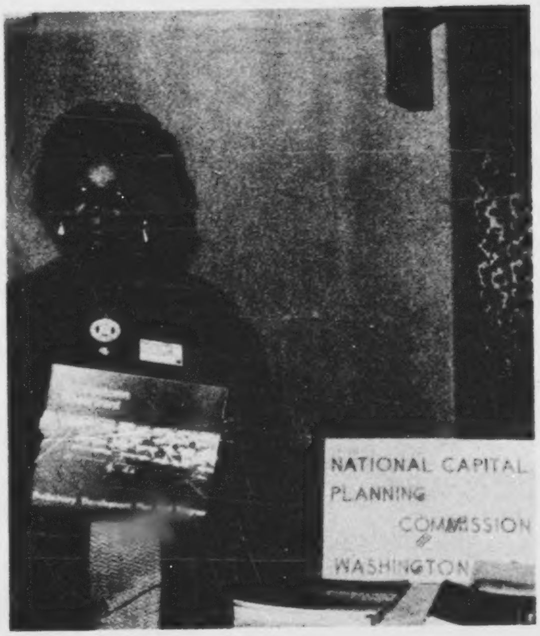
Little, Kaufman, McIntyre

Kraus, Rheams

Friedman


NATIONAL BUREAU
STANDARDS
WASHINGTON

Daniel, Scott


NATIONAL CAPITAL
PLANNING
COMMISSION
WASHINGTON

Brown

Schonbrun, Uskavitch, Allen

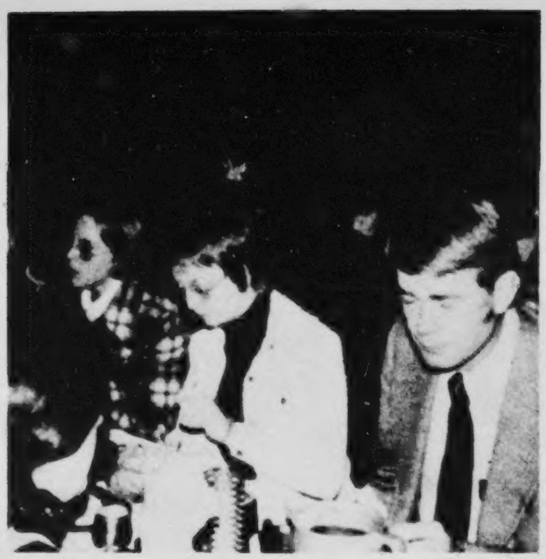
Lillis, Schalow

Johns, Barrett

Leonard

Bankhead, Crew, Lea

Shepard, Raines (and friend)



Banquet

Banquet

Commerce Luncheon

Commerce Agency Day

Seba, On-line Computer Demonstration

Rhodes, Reese, Zenich

Schaffer, Finzi

Summary of Questionnaire

A two-part questionnaire was given to all participants for completion during the Workshop. On the pages that follow, Part I is summarized in its entirety, with numbers indicating responses to each question. Regarding Part II, the responses for selected questions are summarized; the remainder of the responses were not receptive to statistical summarization. All questionnaires were made available to the Long Range Planning Committee.

PART I

1. Are you employed in a Federal Library?

168 - () YES - full time
10 - () YES - part time
10 - () NO

2. Is your library:

80 - () small
66 - () medium (10,000 - 50,000 volumes)
41 - () large

3. How many people are employed by the agency facility that your library serves?

20 - () less than 50
24 - () between 50 and 100
49 - () between 100 and 500
15 - () between 500 and 1,000
70 - () more than 1,000
8 - () unsure

4. What is your job classification?

9 - () Secretarial - Clerical
47 - () Library Technical (i.e. 1411 series)
113 - () Librarian (i.e. 1410 series)
7 - () Technical Information Specialist (i.e. 1412 series)
15 - () Other - please specify: ______________________________

5. How many permanent full time equivalents are employed in your library?

50 - () one
49 - () two to four
29 - () five to ten
38 - () more than ten

6. Are your job responsibilities primarily: (Check all responses that apply)

53 - () Administrative services:

90 - () supervision   51 - () personnel

61 - () Technical services:

105 - () acquisition	56 - () card production
108 - () cataloging	88 - () classification
22 - () abstracting	14 - () editing
48 - () indexing	48 - () book preparation

54 - () Information services:

113 - () reference	85 - () interlibrary loan
68 - () bibliography	39 - () information analysis
95 - () circulation	56 - () copy services

14 - () Other - please specify:______________________________

7. Does your library contain microform material?

113 - () YES
15 - () NO, but it is available through nearby facilities
61 - () NO

8. Does your library use, or contemplate using in the near future, the services of a computer to facilitate library operations (i.e., searching a data file, using MARC tapes)?

73 - () YES
20 - () NO, but nearby facilities could be utilized for that purpose with proper training and funding
85 - () NO

9. Does your library use data processing equipment in library operations (i.e., card sorter, paper tape printer, MTST, Magcard)?

52 - () YES
24 - () NO, but it is available through nearby facilities
102 - () NO

10. How many years have you been employed in Federal library service?

26 - () less than two years
34 - () two to five years
42 - () five to ten years
29 - () ten to fifteen years
47 - () more than fifteen years
9 - () never

11. Do you have work experience in a Federal library other than where you are now employed?

64 - () YES
18 - () NO, but the agency has changed significantly while I have been employed
100 - () NO

12. How many years have you worked in the Federal library where you are presently employed?

36 - () less than two years
54 - () two to five years
40 - () five to ten years
22 - () ten to fifteen years
22 - () more than fifteen years
8 - () not presently employed in a Federal Library

13. Do you have work experience in a library other than a Federal library?

81 - () YES - full time
44 - () YES - part time
70 - () NO

14. What is the total number of years that you have had work experience in a library other than a Federal library?

64 - () no previous experience
28 - () one year
44 - () two to five years
44 - () more than five years

15. Was any previous work experience in a Federal or other library related to the duties that you now perform?

41 - () most of the duties that I now perform
48 - () some of the duties that I now perform
28 - () a few of the duties that I now perform
7 - () I seldom use previously learned skills
8 - () I never use previously learned skills
41 - () I had no previous library work experience

16. How many times have you participated in a Federal library meeting (include Agency meetings)?

83 - () this is my first Federal library meeting
55 - () second meeting
36 - () third to fifth meeting
19 - () more than five meetings

17. Will additional training qualify you for another position, or a promotion in your library?

50 - () YES
61 - () NO, but it might permit me to expand my responsibilities
67 - () NO, at least not in the near future

18. I belong to the following professional associates:

34 - () American Library Association (ALA):

    15 - () Federal Librarian Roundtable (FLIRT)
    5 - () Government Documents Roundtable (GODORT)
    5 - () American Association of School Libraries (AASL)

64 - () Special Libraries Association (SLA)
16 - () American Society for Information Science (ASIS)
14 - () Federal Librarians Association (FLA)
10 - () Military Librarians Assn.
5 - () Medical Library Assn.
3 - () American Assn. of Law Librarians
2 - () National Microfilm Assn.
1 - () American Records Management Assn.
48 - () State Library Association
6 - () National Education Association
Regional Library Association:

30 - () Local   11 - () Interstate

19. I have participated in the associations checked under ITEM 18, by:

a. Attending meetings at the:

77 - () local level
51 - () state level
68 - () national level

b. Committee work at the:

52 - () local level
25 - () state level
18 - () national level

c. Serving as an officer at the:

41 - () local level
17 - () state level
10 - () national level

d. 41 - () I have NOT participated in any library related association activities

20. I am attending this workshop:

4 - () on annual leave
70 - () on administrative leave
73 - () as a training program
56 - () as a professional meeting
2 - () other - please specify:______________________________

21. Do you approve of workshop meetings alternating between Washington, D. C., and the field?

143 - () YES
5 - () NO
30 - () NOT SURE

22. I would be most likely to attend a future meeting held in the:

12 - () Northeast
20 - () Northwest
12 - () Central
35 - () Rocky Mountain
9 - () Southeast
34 - () Southwest
32 - () Washington, D. C.
75 - () No preference

23. What time of the year would the workshop be most/least convenient for you?

CIRCLE two of the MOST CONVENIENT months
CROSS THROUGH two of the LEAST CONVENIENT months

*8	January	**56	12	July	47
12	February	8	18	August	22
19	March	3	113	September	12
45	April	4	69	October	8
30	May	13	6	November	20
12	June	49	1	December	77

* Left side most convenient.
** Right side least convenient.

PART II

1. Did you find that the Federal Library Workshop filled needs not met by other library meetings?

60% - () YES
5% - () NO
35% - () Experience is not sufficient to permit comparison

2. Were the topics covered during the Workshop presented in an effective format for you? (i.e., general sessions, panel discussions, simultaneous sessions, agency day, etc.)

14% - () all of the time
73% - () most of the time
11% - () not particularly
2% - () communication was poor

3. Would you recommend that future workshops should concentrate: (CIRCLE YOUR ANSWER)

MORE - ABOUT THE SAME (69%) - LESS
(on speakers in general sessions)

MORE (46%) - ABOUT THE SAME (38%) - LESS
(on panel discussions)

MORE - ABOUT THE SAME (61%) - LESS
(on simultaneous sessions)

MORE (32%) - ABOUT THE SAME (53%) - LESS (15%)
(emphasis on Agency Day)

4. How would you characterize the effect of meeting with participants from other agencies?

38 - () Allowed sessions to focus on specific aspects of librarianship.
74 - () Permitted comparisons of various operating library systems.
64 - () Provided intellectual stimulation.
26 - () Did not permit sufficient attention to be devoted to specific agency problems.
10 - () Made the sessions confusing because various agencies have different regulations.
6 - () Made the sessions too general to be of value.
() Other, please write in:______________________

5. Would you like to see more displays of commercial products, goods, and servies?

48% - () YES
17% - () NO
() Probably would not go to see them if they were present.
() Probably would go to see them if they were present.

6. Was the theme of the workshop "Library objectives - a Synergistic Approach" achieved?

70% - () YES
15% - () WHAT DOES IT MEAN?
11% - () NO

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